

**2311 Models 1, 11, and 12  
Disk Storage Drive**

**IBM** Parts Catalog

**2311 Models 1, 11, and 12  
Disk Storage Drive**

**IBM®** Parts Catalog

## PREFACE

This Illustrated Parts Catalog (IPC) contains listings and illustrations of all replaceable assemblies, subassemblies and detail parts released to Production Control on or before March 21, 1967 for the 2311 Models 1, 11, and 12 Disk Storage Drive.

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This manual has been prepared by the IBM Systems Development Division, Product Publications, Dept. B97 - Parts Catalog Center, P.O. Box 390, Poughkeepsie, New York 12602

A form is provided at the back of this publication for reader's comments. If the form has been removed, comments may be sent to the above address.

GLOSSARY . . . . .	I
HOW TO USE . . . . .	II - III
VISUAL INDEX . . . . .	IV through IX
GROUP ASSEMBLY PARTS LIST . . . . .	1 through 63
NUMERICAL INDEX . . . . .	1 through 8

## GLOSSARY

### AR

As Required (AR) in the units per assembly column denotes that the quantity is used as required.

### \*ASTERISK

An asterisk in the left margin of the list indicates a part changed in the latest revision of the catalog.

### INDENTURE

The relationship of a part to its next higher assembly is indicated by indenture. For example:

1	2	3	4
<b>Unit</b>			
.	Assemblies and Detail Parts of Unit		
.	.	Subassemblies	
.	.	.	Detail Parts for Subassemblies, etc.

### II LOZENGE

The lozenge in the description column indicates parts not recommended for field replacement.

### NP

The entry NP in the Units Per Asm column denotes the part is non-procurable and that the next higher assembly should be ordered.

### NO NO.

When this indication appears in the part number column, it denotes a group of parts for which no part number has been assigned.

### REF

This entry in the units per assembly column denotes an assembly which is completely assembled on a preceding illustration. Quantities for such items are found in its next higher assembly.

### SIMILAR ASSEMBLIES

If two assemblies contain a majority of identical parts, they are broken down on the same list. Common parts are shown by one index number. Parts peculiar to one or the other of the assemblies are listed separately and identified by Usable On Code.

### USABLE ON CODE

Part application and interchangeability is indicated by the usable on code. If this column is blank, the parts pertain to all equipment(s) covered. Two types of codes are used. The alphabetic code denotes similar assemblies and/or features; the numeric code denotes level. Refer to the beginning of each list for the explanation of the code(s).

### VISUAL INDEX

This index is a pictorial index to catalog figures. The visual index directs the user to the proper figure, assisting him in locating the part number.

## HOW TO USE AN IPC

### IPC ORGANIZATION

To find parts quickly, you should understand the structure of a parts catalog. First, the complete machine is drawn with major assemblies and sub-assemblies in place (Visual Index Section). Then the machine is "disassembled" into drawings of assemblies and subassemblies (Group Assembly Parts List "GAPL" Section). Thus, the sequence of figures in the catalog is the reverse of the manufacturing assembly sequence. This means that parts are not grouped according to machine functions.

One result of structuring a catalog in this manner is that some parts -- filters, brackets, belts, spring clips -- may not be where you would "logically" expect to find them in a catalog. Because of the assembly sequence, you may find these kinds of parts on a higher-level assembly. This is an important point and is why every GAPL List is cross-referenced to any higher-level or lower-level figures.

Some detailed parts are unavailable, either because they are part of an inseparable assembly (two parts welded together), or because they are part of an assembly purchased as a unit. In either case, you will need to obtain the assembly rather than the detailed part. Here again, you need to locate the part number of the next higher assembly.

### Catalog Sections

A parts catalog has three sections:

1. Visual Index -- At front of catalog; shows major assemblies
2. GAPL -- A pictorial breakdown of assemblies and subassemblies
3. Numerical Index -- At back of catalog; lists all part numbers numerically

### Visual Index

The Visual Index is the starting point for locating a part. Illustrations in the visual index show overall views of the machine and its major assemblies. Callouts on the illustrations lead you to detailed figures in the GAPL Section.

### Group Assembly Parts List (GAPL)

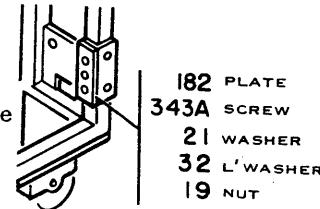
The GAPL Section consists of related Figures and Lists. The GAPL Figures break down the assemblies and subassemblies into detailed parts. The GAPL Lists describe the parts and give part numbers. Each Figure in the GAPL Section is referenced from the Visual Index Section. The relation of assemblies to subassemblies is indicated by indentation.

### Numerical Index

The Numerical Index at the back of the catalog lists all parts in numeric order. Each part number is cross-referenced to related Lists and Figures in the GAPL Section. The Numerical Index permits you to locate and identify a part when only the part number is known.

### Stacked Index Numbers

Index numbers are stacked only to indicate a part and its attaching hardware. The sequence of a typical stack is shown at right.



### HOW TO FIND A PART

Steps 1 through 8 in the flow chart take you through the route for finding most parts. Because some parts may not be on the first GAPL Figure, you may be required to go to a lower-level or higher-level GAPL Figure to find a part.

### Lower-Level Assembly

If the first GAPL Figure shows an assembly containing the required part, a figure reference in the GAPL List will indicate the proper, lower-level GAPL Figure. You should find your part in the breakdown of the assembly.

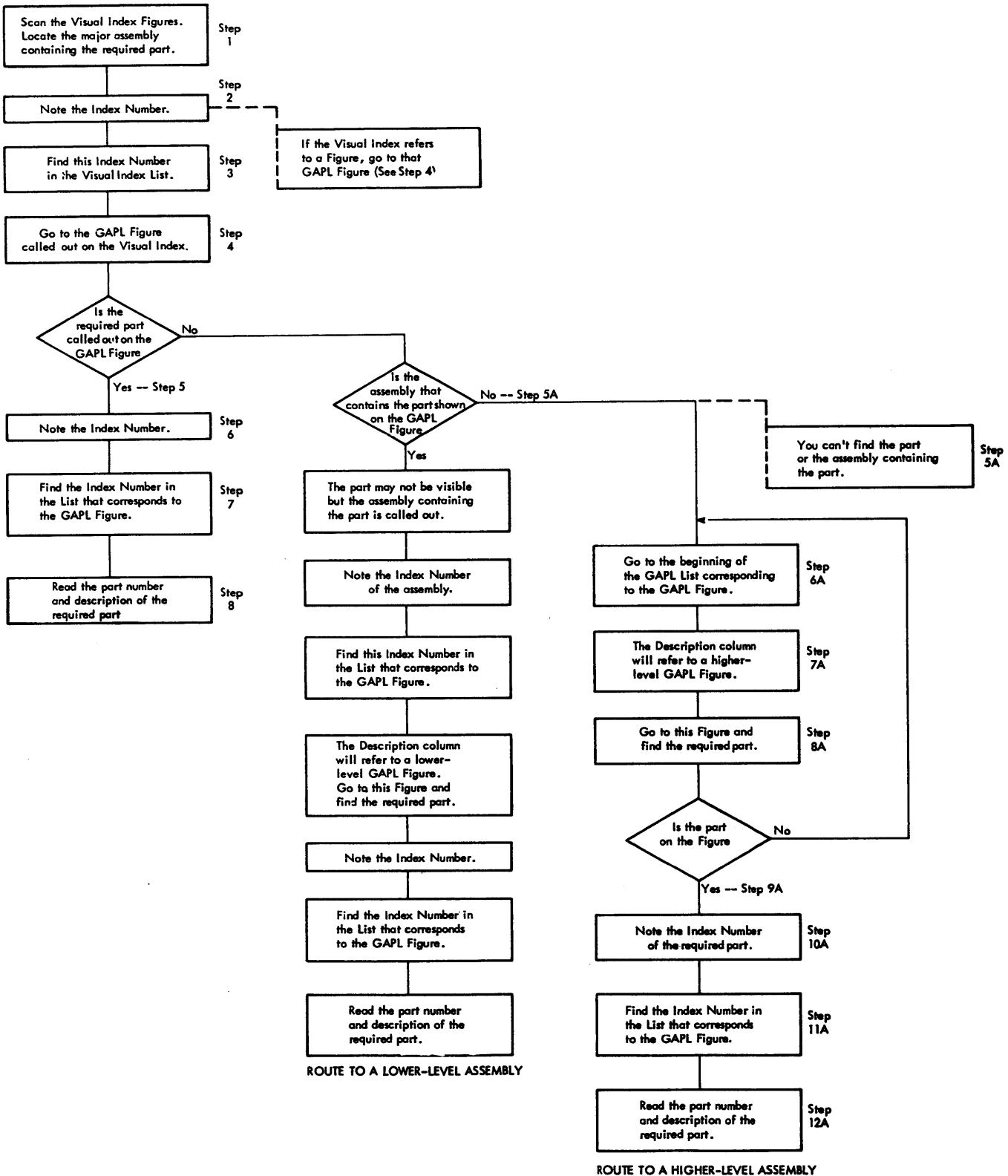
### Higher-Level Assembly

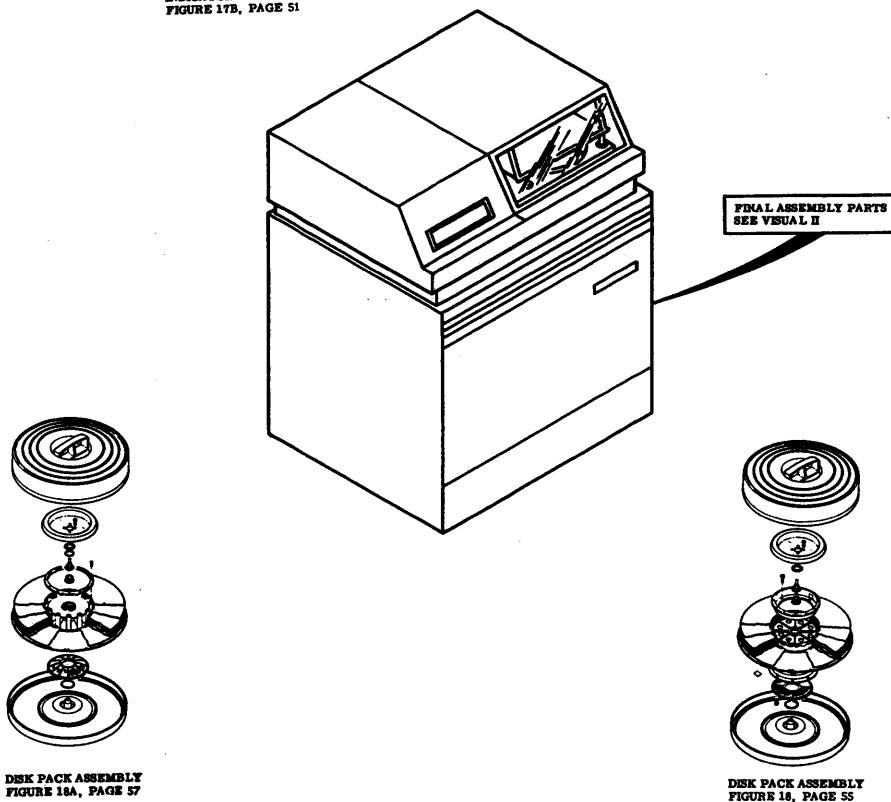
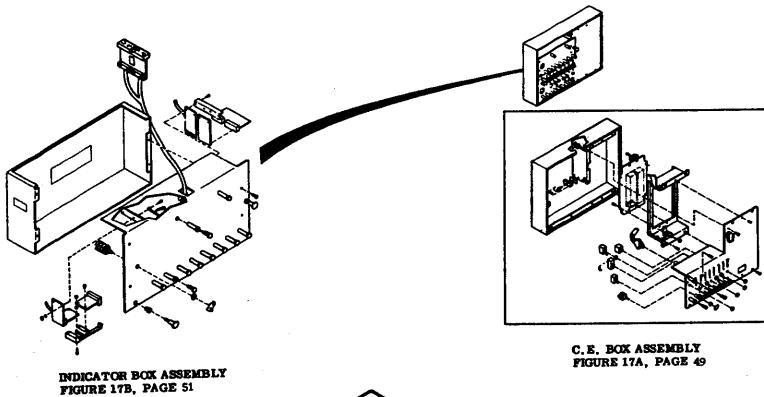
The most puzzling instance is when neither the part you are looking for, nor its assembly, is found on the first GAPL Figure. Steps 5A through 12A in the flow chart show the method. Note the loop after Step 8A of the flow chart provides for more than one level of "backing up" to find a part. If you do not find your part, go to the next higher-level, as indicated in Step 7A.

### New Catalogs

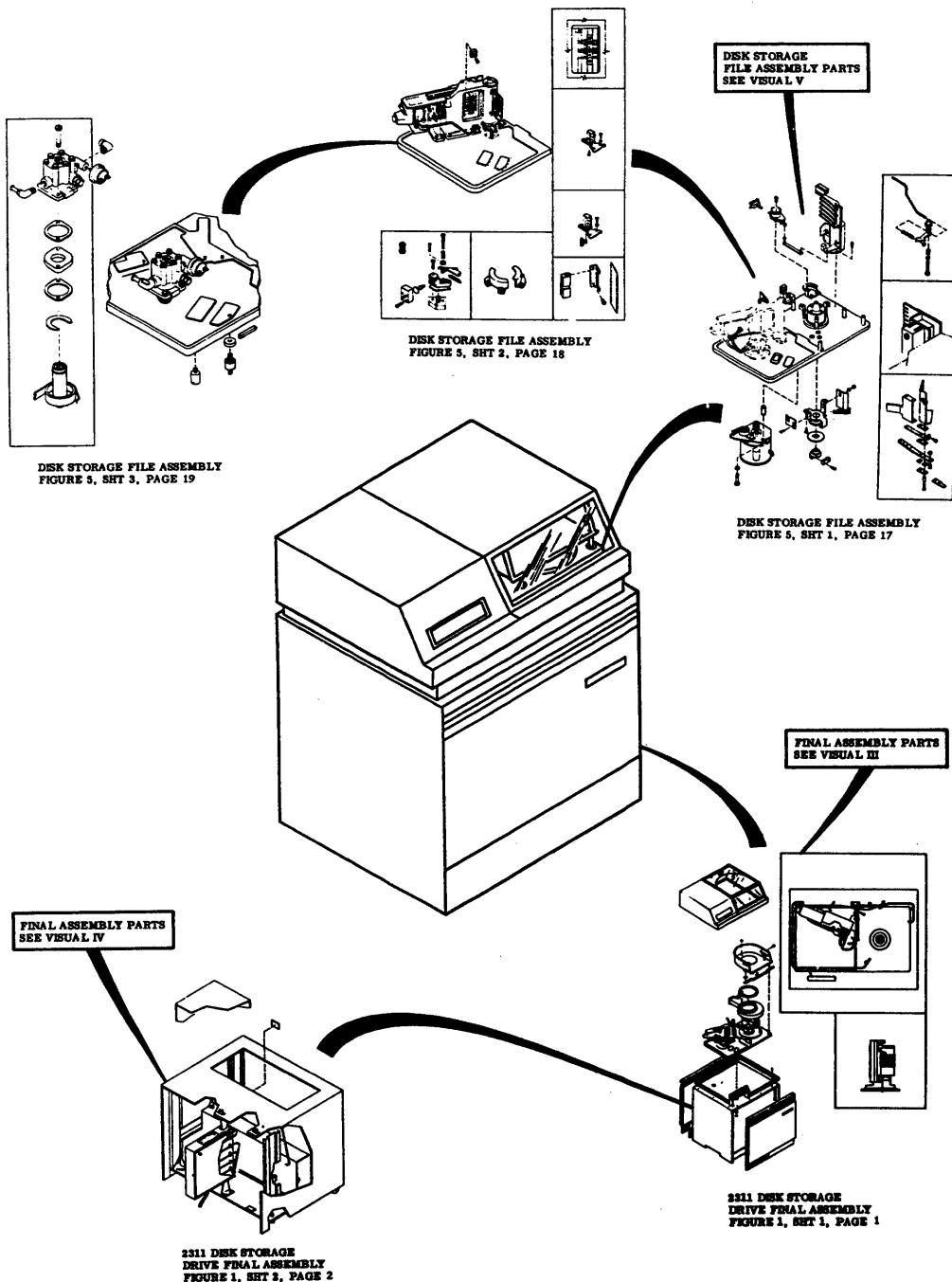
Catalogs issued after 1966 will contain improved methods of cross-referencing. New Visual Indexes will reference detailed figures directly, rather than through a list. Also, references to higher- or lower-level assemblies will be direct from figure to figure.

## HOW TO FIND A PART

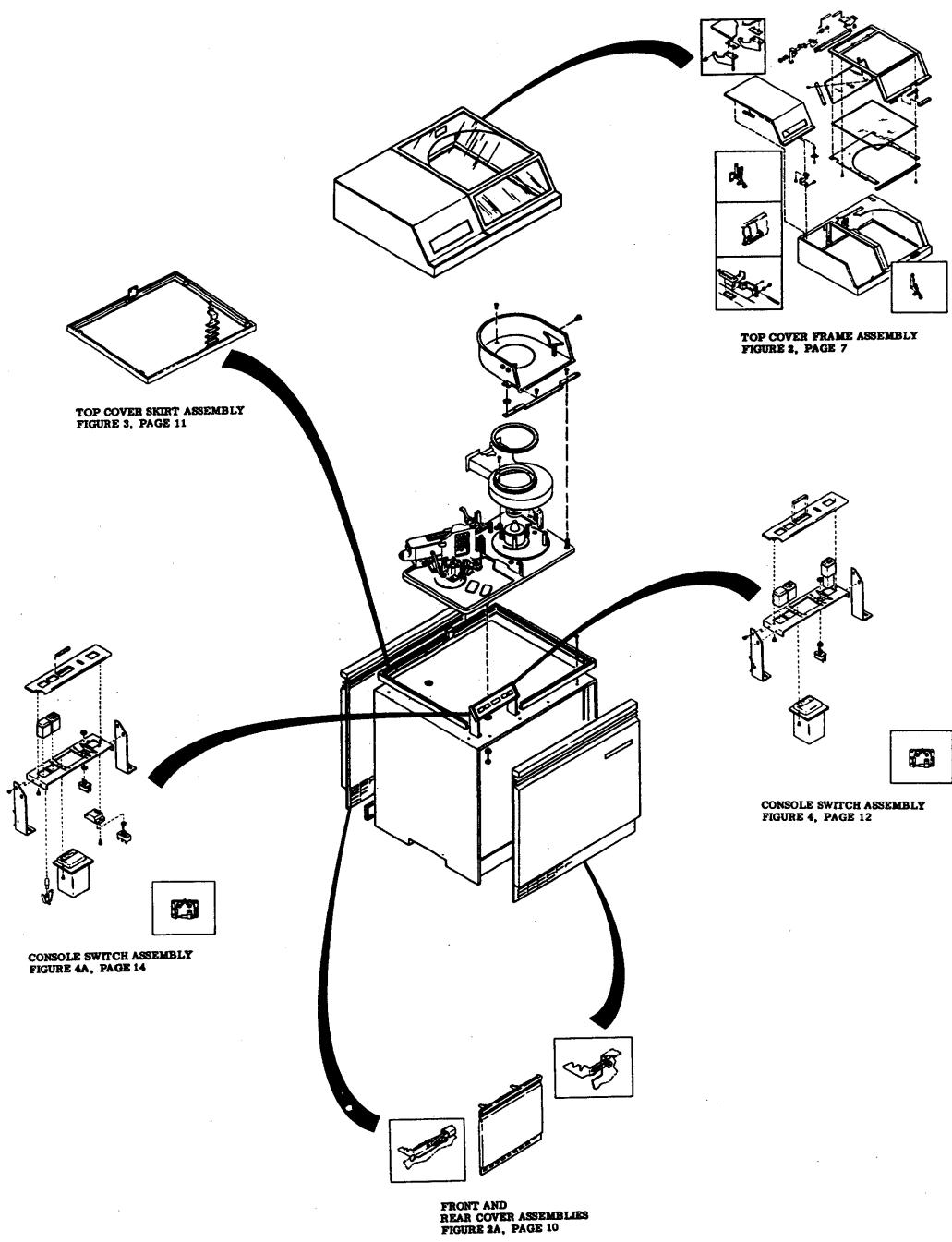




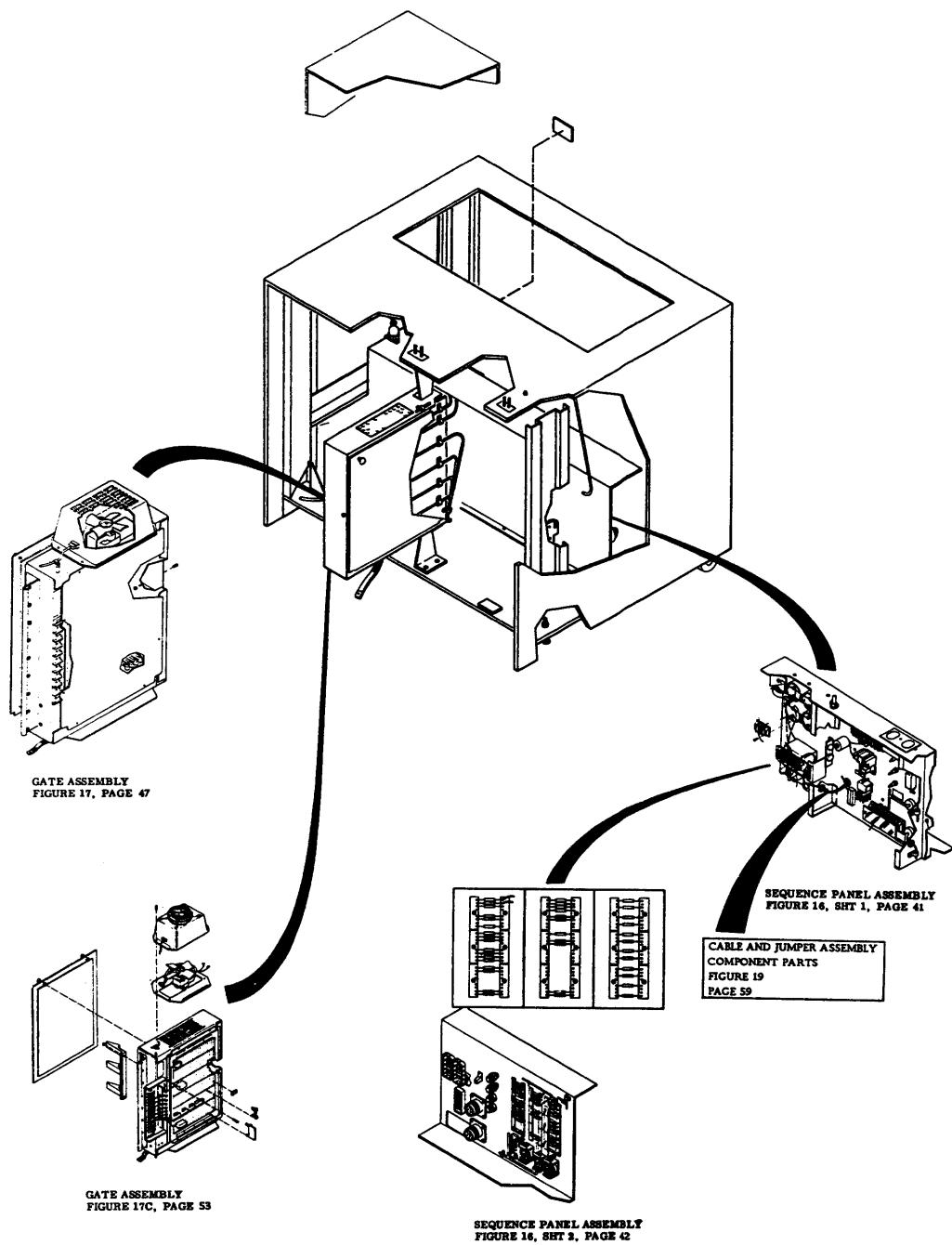
VISUAL I



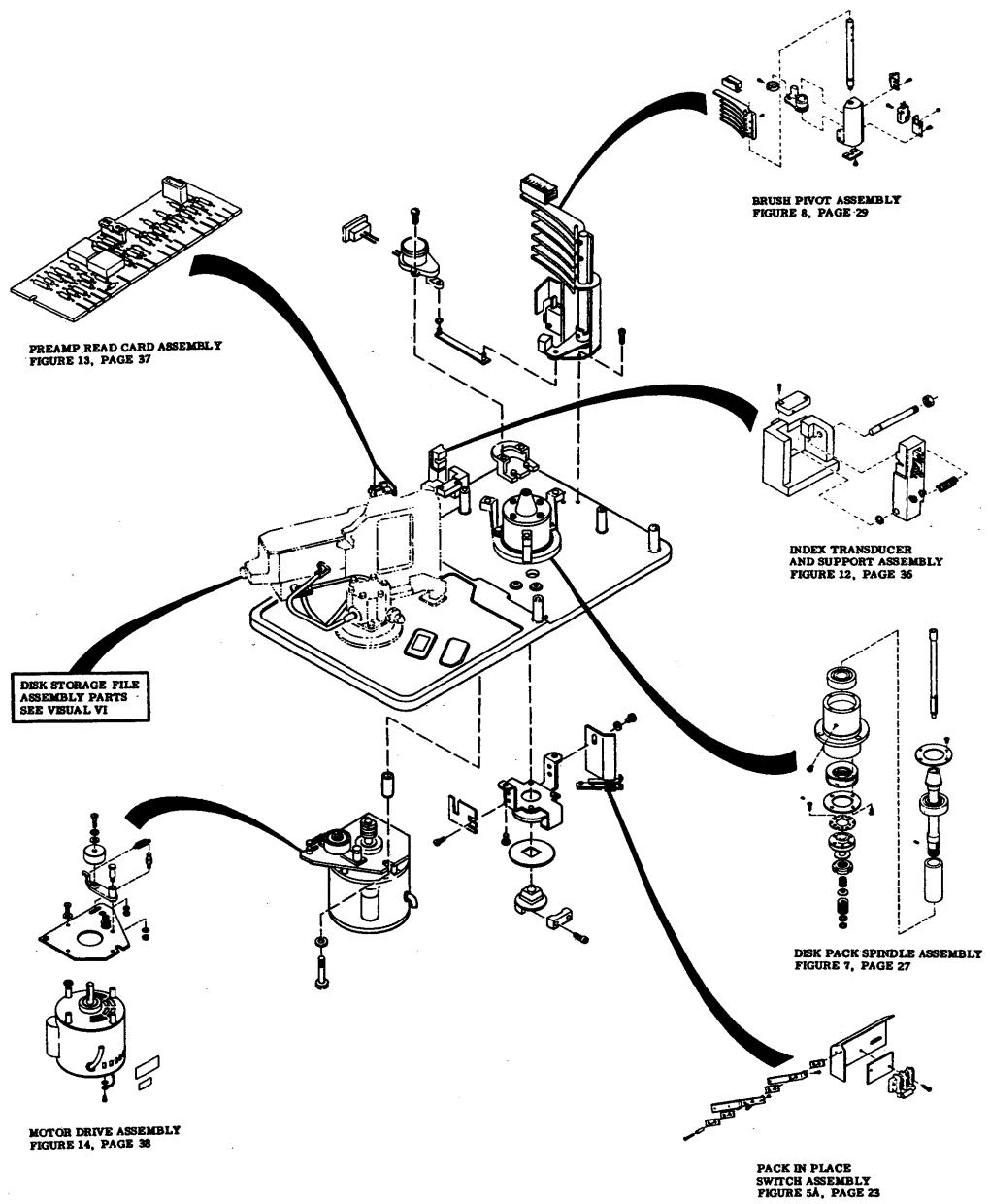
VISUAL II



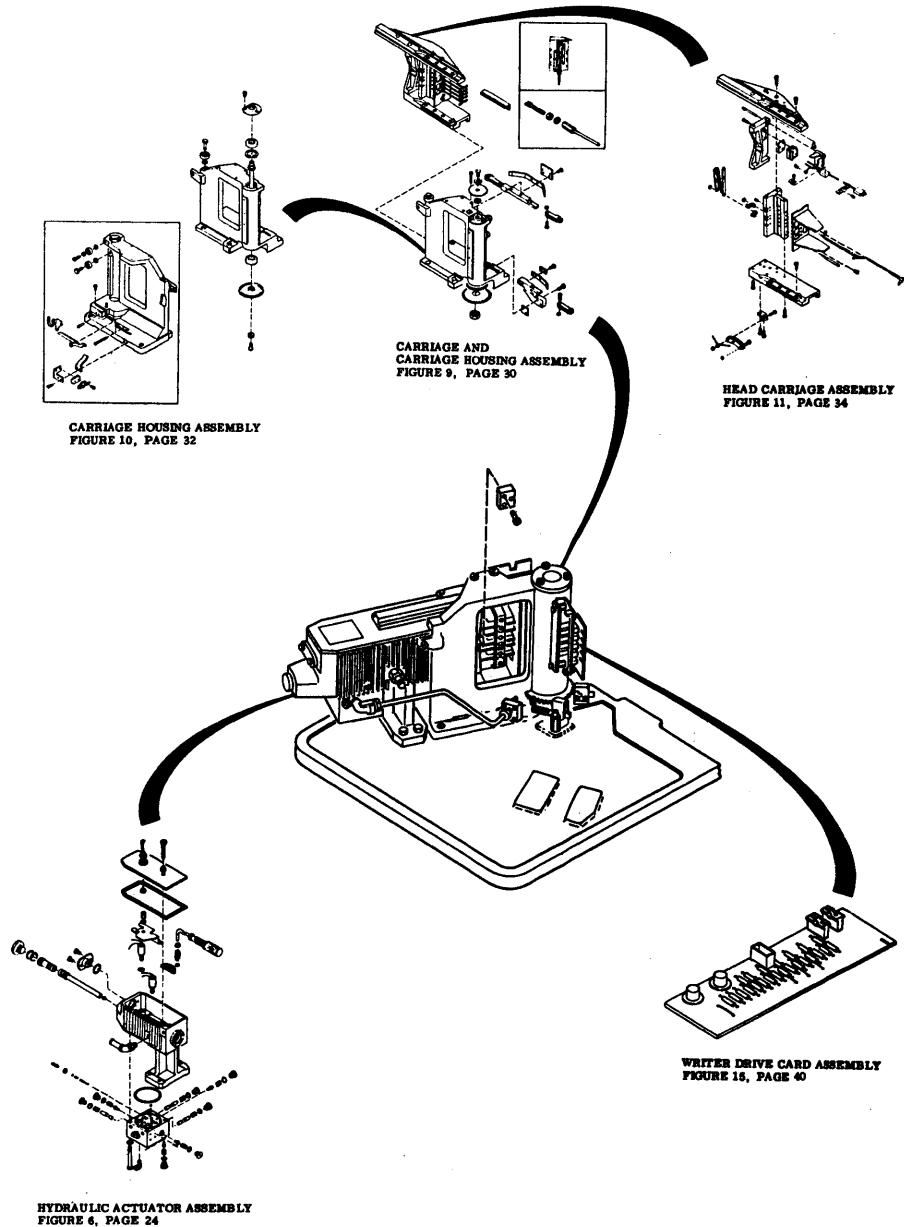
VISUAL III



VISUAL IV



VISUAL V



VISUAL VI

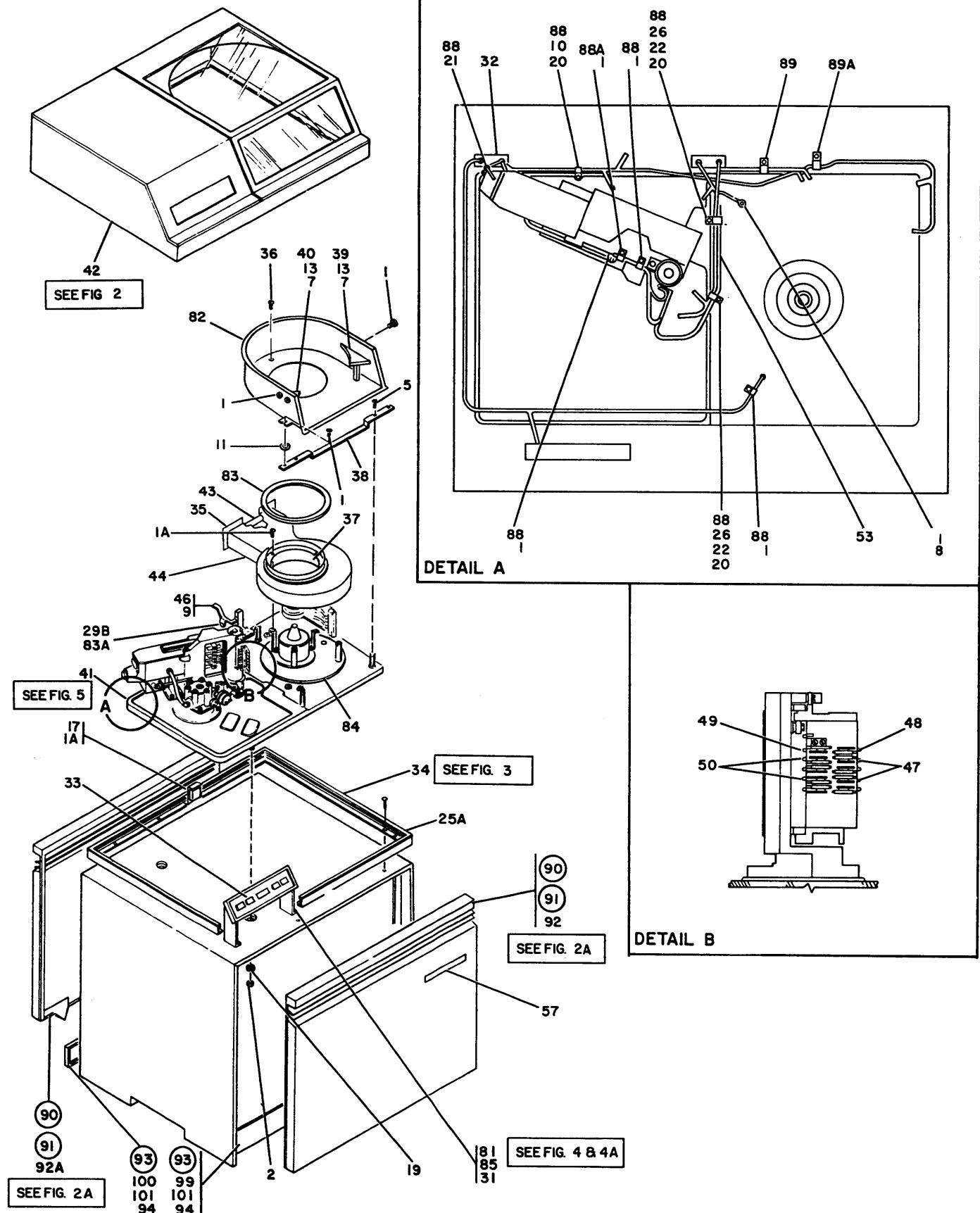


FIGURE 1. 2311 DISK STORAGE DRIVE FINAL ASSEMBLY. SHEET 1 OF 2. SEE LIST 1.

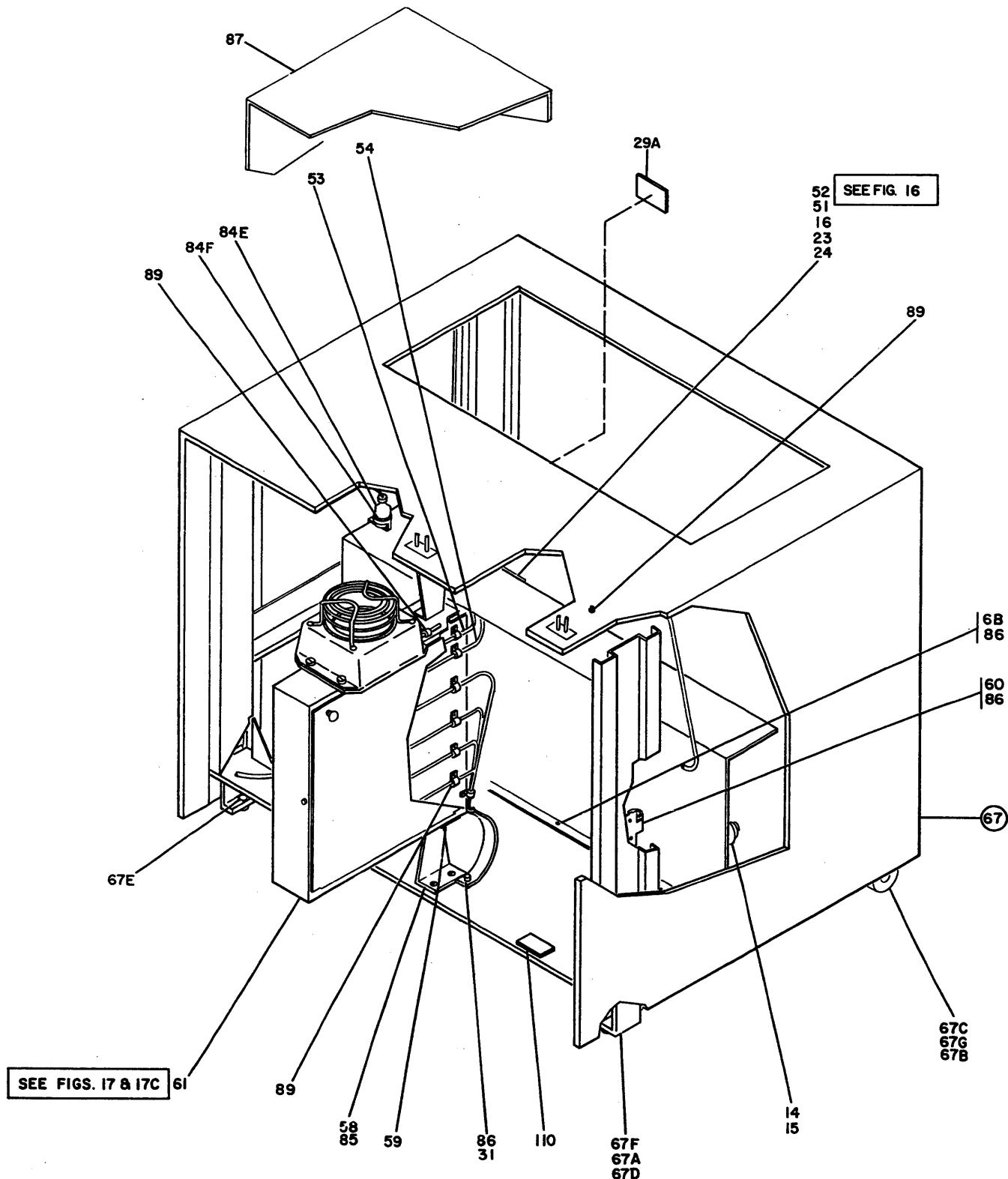


FIGURE 1. 2311 DISK STORAGE DRIVE FINAL ASSEMBLY. SHEET 2 OF 2. SEE LIST 1.

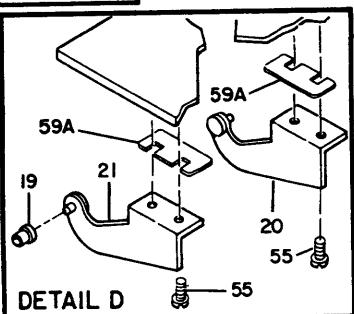
LIST AND INDEX NO.	PART NO.	1 2 3 4	DESCRIPTION	UNITS PER ASM.	USABLE ON CODE
2311 DISK STORAGE DRIVE FINAL ASSEMBLY					
*	1 -	-	CODE A USED ON 60 CYCLE MACHINES CODE B USED ON 50 CYCLE MACHINES CODE C USED ON BLUE COVER DOMESTIC MACH. CODE D USED ON RED COVER DOMESTIC MACH. CODE E USED ON YELLOW COVER DOMESTIC CODE F USED ON GREY COVER DOMESTIC MACH. CODE G USED ON BLUE COVER WTC MACHINES CODE H USED ON RED COVER WTC MACHINES CODE J USED ON YELLOW COVER WTC MACHINES CODE K USED ON GRAY COVER WTC MACHINES CODE L USED ON 360 IBM INSTALLATIONS CODE M USED ON 360 NON-IBM INSTALLATIONS CODE 1 USED ON ASM PRIOR TO L5 SUFFIX CODE 2 USED ON ASM FROM L5 TO CURRENT CODE 3 USED ON ASM PRIOR TO P5 SUFFIX CODE 4 USED ON ASM FROM P5 TO CURRENT CODE 5 USED ON ASM PRIOR TO A6 SUFFIX CODE 6 USED ON ASM FROM A6 TO CURRENT CODE 7 USED ON ASM PRIOR TO D6 SUFFIX CODE 8 USED ON ASM PRIOR TO G6 SUFFIX CODE 9 USED ON ASM FROM G6 TO CURRENT		
*	2180500		FINAL ASSEMBLY, 60 CYCLE SEE FIGURE 1 FOR ILLUSTRATION	REF	A
*	2180850		FINAL ASSEMBLY, 50 CYCLE SEE FIGURE 1 FOR ILLUSTRATION	REF	B
*	1 10170		• SCREW-MACH,BIND HD NO. 6-32 X .250 LG	10	8
*	1 10170		• SCREW-MACH,BIND HD NO. 6-32 X .250 LG	6	9
*	1A 10170		• SCREW-MACH,BIND HD NO. 6-32 X .250 LG	5	5
*	1A 2181005-		• SCREW, SELF TAPPING, 6-32 X .375 LG.	5	6
*	1B 10170		• SCREW-MACH,BIND HD NO. 6-32 X .250 LG SEE FIGURE 16- 1 FOR ILLUSTRATION	2	
*	2 25793-		• NUT,PLAIN,HEX- 5/16-18 X 1/2 FL W	3	
*	2A 25627-		• SCREW,MACH-BIND HD 8-32 X 1/2 LG SEE FIGURE 16- 3A FOR ILLUSTRATION	4	2
*	2B 34512-		• SCREW,BIND.HD 8-32 X .375 LG SEE FIGURE 16- 6A FOR ILLUSTRATION	1	2
*	3 38235-		• SCREW,MACH-FIL H 6-32 X 5/16 LG	1	
*	4 38264		• SCREW,MACH-FIL H 4-40 X 3/8 LG	4	1
*	4 2181207		• SCREW,THD FORMING-FIL H 6-32 X 1/4 LG SEE FIGURE 16- 4A FOR ILLUSTRATION	8	2
*	4A 38354		• SCREW,MACH-FIL H 6-32 X 1/2 LG SEE FIGURE 16- 8A FOR ILLUSTRATION	4	
*	5 38443-		• SCREW, FLAT HEAD, 6-32 X 5/16 LG	2	
*	6 55726-		• SCREW, MACH-BIND HD NO. 6-32 X 3/16 LG SEE FIGURE 16- 11 FOR ILLUSTRATION	2	
*	6A 55901-		• LOCKWASHER, EXTERNAL TOOTH SEE FIGURE 16- 12B FOR ILLUSTRATION	5	2
*	6B 56079-		• WASHER,LOCK-EXT T .195 ID .410 OD	1	2
*	7 56722-		• WASHER,LOCK-EXT T .141 ID	2	8
*	8 62031		• WASHER,LOCK-INT TEETH NO. 6 X 0.295 OD	2	
*	9 80651-		• SCREW,SELF-TAPPING BIND HD 3/8 LG	2	
*	10 81693-		• SCREW, MACH-BIND HD NO 6-32 X 3/8 LG	1	
*	11 111229-		• WASHER INDEX 12 DELETED	2	8
*	13 186927-		• SCREW,CAP,SOC HD- 6-32 X 1/4 LG	2	8
*	14 187491		• SHIELD,10 POSITION 15AMP	1	A
*	14 187491		• SHIELD,10 POSITION 15AMP	1	7B
*	15 210984-		• SCREW, RD HD MACH-6-32 X .250 LG	1	A
*	15 210984		• SCREW, RD HD MACH-6-32 X .250 LG	1	7B

LIST AND INDEX NO.	PART NO.	1 2 3 4	DESCRIPTION	UNITS PER ASM.	USABLE ON CODE
			2311 DISK STORAGE DRIVE FINAL ASSEMBLY -CONT		
*	1 - 16	221790-	. SCREW, MACH-BIND HD 8-32 X 3/16 LG	4	1
*	- 16	2181004	. SCREW, THREAD FORMING-HEX WASHER HD	4	2
*	- 17	231658-	. SWITCH, INTERLOCK	1	
*	- 18	257958-	. SETSCREW,HEADLESS SEE FIGURE 8- 2A FOR ILLUSTRATION	5	
*	- 19	257983-	. WASHER,LOCK SPLIT 0.591 OD X 0.078 THK	3	
*	- 20	257986-	. WASHER,FL- NO. 6 X 0.312 OD	6	
*	- 21	322550-	. SCREW, MACH-BIND HD NO. 6-32 X 1/2 LG	4	
*	- 22	322552-	. SCREW, MACH-BIND HD NO. 6-32 X 7/8 LG	2	
*	- 22A	359044	. TUBING SEE FIGURE 5- 23A FOR ILLUSTRATION	AR	
*	- 23	362915	. LABEL, IBM, BLACK LETTERS ON WHITE SEE FIGURE 16- 56A FOR ILLUSTRATION	1	
*	- 24	369207	. LABEL, VOLTAGE	1	
*	- 25	372688-	. CARD ASSEMBLY SEE FIGURE 16- 58 FOR ILLUSTRATION	1	
*	- 25A	601093	. SCREW,MACH-BIND HD 8-32 X 3/8 LG	6	
*	- 26	601365	. SPACER, 1/2 LG X 1/4 OD X 0.152 ID	2	
*	- 26A	734879-	. SWITCH, TOGGLE, DPDT, NOT ILLUSTRATED	1	38
*	- 27	740490	. DECAL SEE FIGURE 4- 25 AND 4A- 24 FOR ILLUSTRATION	1	
*	- 28	740493	. BRACKET, CARD MOUNTING SEE FIGURE 16- 83 FOR ILLUSTRATION	1	
*	- 29	740550	. JUMPER ASSEMBLY, 2-1/2 INCH SEE FIGURE 16- 84 FOR ILLUSTRATION	2	
*	- 29A	845762	. DECAL-VOLTAGE	1	9
*	- 29B	1073418-	. RING-RETAINING	1	
*	- 30	2125765	. LOCKWASHER, DISHED SEE FIGURE 16- 99E FOR ILLUSTRATION	2	
*	- 31	2125974	. WASHER, INT TOOTH, .200 ID X .562 OD	3	
*	- 32	2154009	. GROMMET, RUBBER	2	
*	- 33	2154534	. BUTTON, NUMBER 0	AR	1
*	- 33	2154540	. BUTTON, NUMBER 1	AR	1
*	- 33	2154541	. BUTTON, NUMBER 2	AR	1
*	- 33	2154542	. BUTTON, NUMBER 3	AR	1
*	- 33	2154542	. BUTTON, NUMBER 3	AR	1
*	- 33	2162847	. BUTTON, NUMBER 6	AR	1
*	- 33	2162848	. BUTTON,NUMBER 8	AR	1
*	- 33	2180781	. BUTTON, NUMBER 5	AR	1
*	- 33	2180782	. BUTTON, NUMBER 7 SEE FIGURE 4- 26 FOR ILLUSTRATION	AR	1
*	- 34	2157620	. SKIRT ASSEMBLY, TOP COVER SEE LIST 3 FOR DETAIL BREAKDOWN	1	
*	- 35	2157649	. GASKET, SKIRT ASSEMBLY	AR	3
*	- 35	2157643	. SEAL, TOP COVER	AR	4
*	- 36	2157666	. SCREW, MACHINE-BIND HD, 6-32 X 0.437 LG	1	
*	- 37	2160715	. FILTER, AIR	1	
*	- 38	2160719	. BRACKET, SHROUD MOUNT	1	8
*	- 38	2181291	. BRACKET,SHROUD MOUNT	1	9
*	- 39	2162564	. GUIDE, DISK PACK RH	1	8
*	- 40	2162565	. GUIDE, DISK PACK LH	1	8
*	- 41	2180400	. FILE ASSEMBLY, 60 CYCLE SEE LIST 5 FOR DETAIL BREAKDOWN	1	A
*	- 41	2180860	. FILE ASSEMBLY, 50 CYCLE SEE LIST 5 FOR DETAIL BREAKDOWN	1	B
*	- 42	2180470	. FRAME ASSEMBLY, TOP COVER SEE LIST 2 FOR DETAIL BREAKDOWN	1	
*	- 43	2180475	. HOUSING, FILTER	1	
*	- 44	2180476	. AIR DUCT	1	
*	- 45	2180499	. BRUSH ASSEMBLY, DISK PACK SEE FIGURE 8- 17 FOR ILLUSTRATION	5	
*	- 46	2180519	. PADDLE, INDEX TRANSDUCER	1	3
*	- 46	2181039	. PADDLE, INDEX TRANSDUCER	1	4
*	- 47	2180560-	. HEAD ASSEMBLY, A-UP	2	

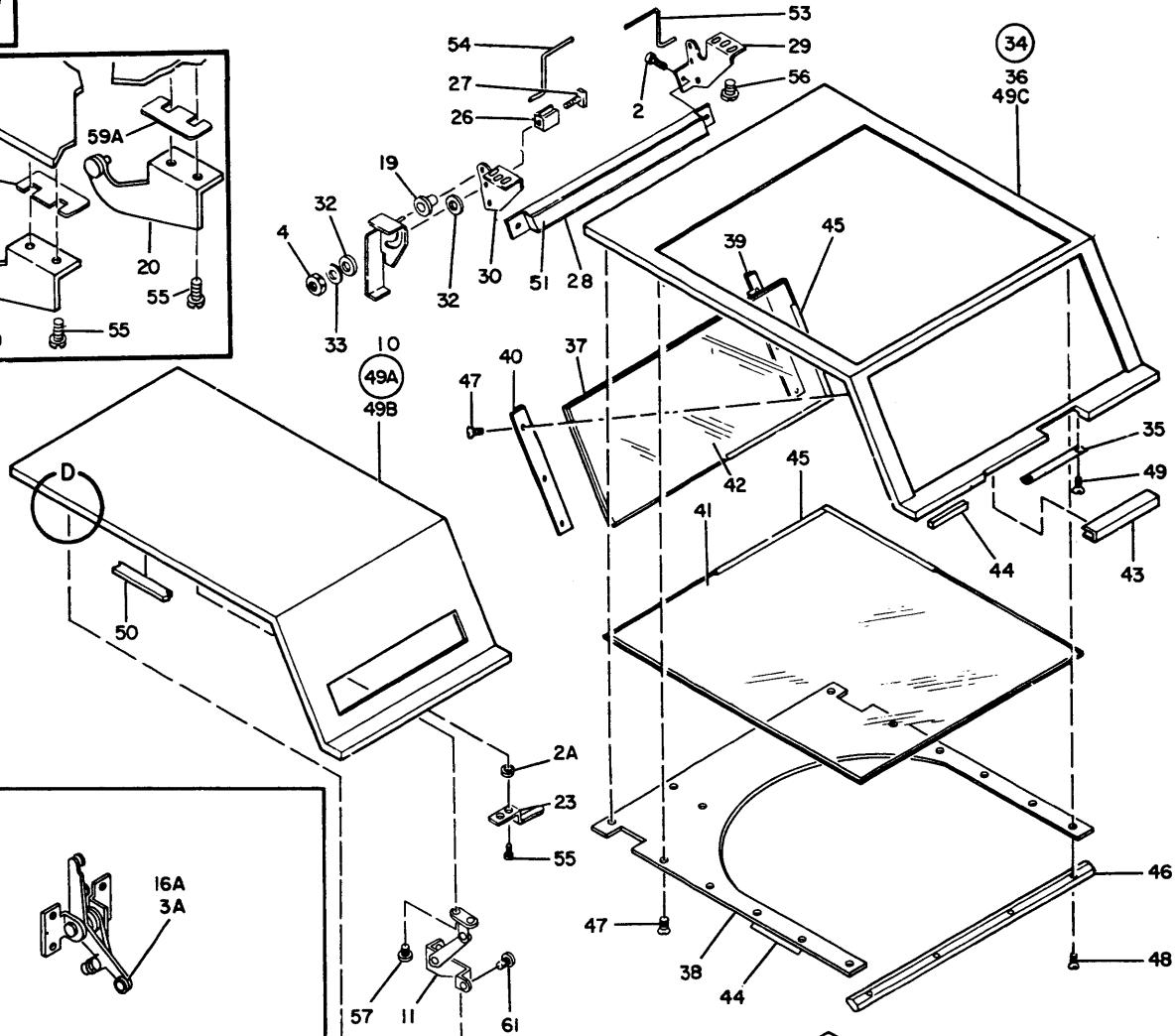
LIST AND INDEX NO.	PART NO.	1 2 3 4	DESCRIPTION	UNITS PER ASM.	USABLE ON CODE
			2311 DISK STORAGE DRIVE FINAL ASSEMBLY -CONT		
1 - 48	2180561-		• HEAD ASSEMBLY, A-DOWN	3	
- 49	2180562-		• HEAD ASSEMBLY, B-UP	3	
- 50	2180563-		• HEAD ASSEMBLY, B-DOWN	2	
- 51	2180679		• COVER, SEQUENCE PANEL	1	
- 52	2180680		• PANEL ASSEMBLY, SEQUENCE, 60 CYCLE SEE LIST 16 FOR DETAIL BREAKDOWN	1	A
- 52	2180852		• PANEL ASSEMBLY, SEQUENCE, 50 CYCLE SEE LIST 16 FOR DETAIL BREAKDOWN	1	B
- 53	2180687		• CABLE ASSEMBLY, HEAD CARDS TO GATE SEE LIST 19-3, 3A, 12, 13D, 14, 21D, 36, 36A, 55 AND 62, FOR COMPONENT PARTS	1	
- 54	2180690-		• CABLE ASSEMBLY, GATE TO TRANSDUCER SEE LIST 19-13B, 20, 53, 55, 59, 60, 61, AND 62, FOR COMPONENT PARTS	1	
- 55	2180691		• CABLE ASSEMBLY, DC TO GATE SEE FIGURE 16- 132 FOR ILLUSTRATION	1	
* - 56	2180692		• CABLE ASSEMBLY, SIGNAL PLUG TO GATE	1	
* - 56	2181189		• CABLE ASSEMBLY-SIGNAL PLUG TO GATE SEE FIGURE 16- 133 FOR ILLUSTRATION	1	2
* - 57	2180714		• NAME PLATE, 2311 DISK STORAGE DRIVE	1	A
* - 57	2180714		• NAME PLATE, 2311 DISK STORAGE DRIVE USED ON LANGUAGE GROUP ENGLISH FEATURE ONLY P/N 2180861	1	B
* - 57	4207403		• PLATE, NAME, GERMAN USED ON LANGUAGE GROUP FRENCH FEATURE ONLY P/N 2180862	1	B
* - 57	4207404		• PLATE, NAME, FRENCH USED ON LANGUAGE GROUP GERMAN FEATURE ONLY P/N 2180863	1	B
* - 58	2180723		• BRACKET, GATE	2	
* - 59	2180735		• BRACKET, GATE STOP	1	
* - 60	2180737		• LATCH, GATE	1	
* - 61	2180740		• GATE ASSEMBLY SEE LIST 17 FOR DETAIL BREAKDOWN	1	5
* - 61	2180740		• GATE ASSEMBLY SEE LIST 17C FOR DETAIL BREAKDOWN INDEXES 62 THRU 66 DELETED	1	6
* - 67	2180873		• MODULE ASSEMBLY, LOWER STRUCTURE	1	
* - 67A	38686		• SCREW,MACH-HEX HD 1/4-20 X 1/2 LG	2	
* - 67B	186950		• NUT,HEX	4	
* - 67C	2180845		• CASTER	4	
* - 67D	2180846		• LOCKWASHER, SHAKEPROOF	2	
* - 67E	2180847		• PAD, STAND	2	
* - 67F	2180848		• STAND, STEEL, 6 INCHES LONG	2	
* - 67G	2180968		• NUT, GRIP, 1/2-13 UNC INDEXES 68 THRU 80 DELETED	4	
* - 81	2180918		• SWITCH ASSEMBLY, CONSOLE, 60 CYCLE SEE LIST 4 FOR DETAIL BREAKDOWN	1	1A
* - 81	2180919		• SWITCH ASSEMBLY, CONSOLE, 50 CYCLE SEE LIST 4 FOR DETAIL BREAKDOWN	1	1B
* - 81	2180918		• SWITCH ASSEMBLY, CONSOLE, 60 CYCLE SEE LIST 4A FOR DETAIL BREAKDOWN	1	2A
* - 81	2180919		• SWITCH ASSEMBLY, CONSOLE, 50 CYCLE SEE LIST 4A FOR DETAIL BREAKDOWN	1	2B
* - 82	2181022		• SHROUD,DISK TOP COVER-STEEL	1	8
* - 82	2181290		• SHROUD,DISK TOP COVER-PLASTIC	1	9
* - 83	2181023		• SEAL, 7.50 ID X 8.50 OD X .187 THICK	1	
* - 83A	2181043		• STUD, ADJUSTABLE PIVOT	1	4
* - 84	2181070		• SEAL, FILTER HOUSING	1	
* - 84A	2181199		• CLIP-STRAIN RELIEF SEE FIGURE 16- 145 FOR ILLUSTRATION	4	2
* - 84B	2181204		• JUMPER ASSEMBLY SEE FIGURE 16- 146 FOR ILLUSTRATION	1	2
* - 84C	2181205		• JUMPER ASM-GRN/YEL 1 LUG 2 SOCK CONTACTS SEE FIGURE 16- 147 FOR ILLUSTRATION	1	2
* - 84D	2181206		• BAR,ADAPTER SEE FIGURE 16- 148 FOR ILLUSTRATION	2	2
* - 84E	2181271		• BOTTLE,PLASTIC- 8 OUNCE	1	9
* - 84F	2181272		• CLIP-BOTTLE	1	9
* - 85	5319888		• SCREW, SELF TAPPING, 10-32 X .625 LONG	6	
* - 86	5348495		• SCREW	9	1
* - 86	2181004		• SCREW,THREAD FORMING-HEX WASHER HD	9	2
* - 87	7350362		• COVER, SHIPPING	1	8
* - 87	4061725		• SHROUD-SUBSTITUTE PART	1	9

LIST AND INDEX NO.	PART NO.	1 2 3 4	DESCRIPTION	UNITS PER ASM.	USABLE ON CODE
2311 DISK STORAGE DRIVE FINAL ASSEMBLY -CONT					
* 1 - 88	NO NO.		. CABLE CLAMP, SEE LIST 19-1	AR	
- 88A	NO NO.		. CABLE CLAMP, SEE LIST 19-1	AR	1
* - 89	NO NO.		. CABLE CLAMP, SEE LIST 19-2	AR	
* - 89A	NO NO.		. CABLE CLAMP, SEE LIST 19-2	AR	1
* - 90	2180910		COVER GROUP FEATURE-BLUE 60 CY DOMESTIC	REF	C
- 90	2180911		COVER GROUP FEATURE-RED 60 CY DOMESTIC	REF	D
* - 90	2180912		COVER GROUP FEATURE-YELLOW 60 CY DOM.	REF	E
* - 90	2180913		COVER GROUP FEATURE-GREY 60 CY DOMESTIC	REF	F
* - 90	2181034		COVER GROUP FEATURE-BLUE 50 CYC WTC	REF	G
* - 90	2181035		COVER GROUP FEATURE-RED 50 CYC WTC	REF	H
* - 90	2181036		COVER GROUP FEATURE-YELLOW 50 CYC WTC	REF	J
* - 90	2181037		COVER GROUP FEATURE-GREY 50 CYC WTC	REF	K
* - 90A	2154286		. PLATE, IDENTIFICATION NOT ILLUSTRATED USED ON CODES G THRU K ONLY	1	
- 91	2173540		. COVER GROUP-BLUE	1	C
- 91	2178541		. COVER GROUP-RED	1	D
- 91	2178542		. COVER GROUP-YELLOW	1	E
- 91	2178543		. COVER GROUP-GREY	1	F
- 91	2181030		. COVER GROUP-BLUE	1	G
- 91	2181031		. COVER GROUP-RED	1	H
- 91	2181032		. COVER GROUP-YELLOW	1	J
- 91	2181033		. COVER GROUP-GREY	1	K
- 92	2180894		. FRONT COVER ASSEMBLY-DOMESTIC USED ON CODES C THRU F ONLY SEE LIST 2A FOR DETAIL BREAKDOWN	1	
- 92	2181024		. FRONT COVER ASSEMBLY-WORLD TRADE USED ON CODES G THRU K ONLY SEE LIST 2A FOR DETAIL BREAKDOWN	1	
- 92A	2180895		. REAR COVER ASSEMBLY-DOMESTIC USED ON CODES C THRU F ONLY SEE LIST 2A FOR DETAIL BREAKDOWN	1	
- 92A	2161027		. REAR COVER ASSEMBLY-WORLD TRADE USED ON CODES G THRU K ONLY SEE LIST 2A FOR DETAIL BREAKDOWN	1	
- 93	2180900		SHIPPING GROUP-IBM 360 INSTALLATION	REF	L
- 93	2181225		SHIPPING GROUP-NON IBM 360 INSTALLATION	REF	M
- 94	28413		. SCREW,MACH-BIND HD 10-32 X 5/16 LG	6	5
- 94	509772		. SCREW	6	6
- 95	2108474		. PADDLE-HEAD CLEANING NOT ILLUSTRATED	55	M
- 96	2108626		. KEY-HEAD ARM ADJUSTMENT NOT ILLUSTRATED	1	M
-- 97	2108913		. ADAPTER ASSEMBLY NOT ILLUSTRATED	1	M
- 98	2162567		. WIPER,DISK NOT ILLUSTRATED	55	M
- 99	2180901		. KICKSTRIP, FRONT	1	
-100	2180902		. KICKSTRIP, REAR	1	
-101	2180915		. CLIP, KICKSTRIP MOUNTING INDEX 102 DELETED	6	
-103	2133908		R AND S 60 CYCLE METER FEATURE NOT ILLUSTRATED	REF	A
-103	2133909		R AND S 50 CYCLE METER FEATURE NOT ILLUSTRATED	REF	B
-104	11598		. NUT PLAIN HEX 10/32 NOT ILLUSTRATED	1	
-105	32617		. SCREW, MACH BD HD 10-32 NF X .4375 LG NOT ILLUSTRATED	1	
-106	56121-		. WASHER,LOCK-INT TEETH NO. 10 X 0.381 OD NOT ILLUSTRATED	1	
-107	813197		. HOUSING-TERMINAL NOT ILLUSTRATED	1	
-108	2180890		. METER ASSEMBLY-R AND S NOT ILLUSTRATED	1	
-109	5804271-		. CARD ASSEMBLY, SLT NOT ILLUSTRATED	1	
* -110	122629		PLATE, IDENTIFICATION-SALE SERIAL NUMBER	1	B
* -110	180528		PLATE,IDENTIFICATION-SERIAL NUMBER	1	B
* -110	124631		PLATE,IDENTIFICATION-LEASE W/SALE OPTION SEE LIST 4A- 26 FOR NEXT HIGHER ASM.	1	B

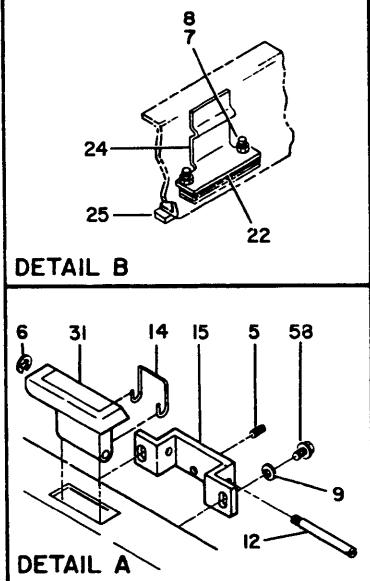
**FOR PARTS  
NOT SHOWN  
SEE FIG. 1**



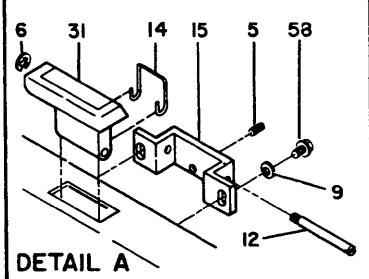
DETAIL D



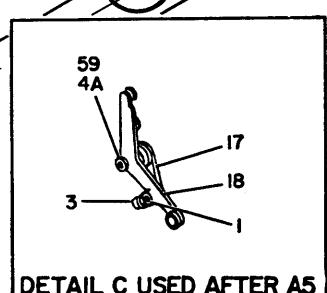
**DETAIL C USED PRIOR TO A5**



DETAIL B



**DETAIL A**



**DETAIL C USED AFTER A5**

FIGURE 2. TOP COVER FRAME ASSEMBLY. SEE LIST 2.

LIST AND INDEX NO.	PART NO.	1 2 3 4	DESCRIPTION	UNITS PER ASM.	USABLE ON CODE
			TOP COVER FRAME ASSEMBLY		
2 -			CODE 1 USED ON ASM PRIOR TO A5 SUFFIX CODE 2 USED ON ASM FROM A5 TO CURRENT CODE 3 USED ON ASM PRIOR TO G5 SUFFIX CODE 4 USED ON ASM FROM G5 TO CURRENT CODE 5 USED ON ASM PRIOR TO B6 SUFFIX CODE 6 USED ON ASM FROM B6 TO CURRENT CODE 7 USED ON ASM PRIOR TO E6 SUFFIX CODE 8 USED ON ASM FROM E6 TO CURRENT CODE 9 USED ON ASM FROM G6 TO CURRENT -		
-	2180470		FRAME ASSEMBLY, TOP COVER SEE LIST 1- 42 FOR NEXT HIGHER ASM. AND FIGURE 2 FOR ILLUSTRATION	REF	
- 1	3960		• NUT, PLAIN, HEX- 1/4-20 X 7/16 FL W	1	2
- 2	10170		• SCREW, MACH-BIND HD 6-32 X 1/4 LG	2	
- 2A	22478		• WASHER, FL- 0.170 ID 0.375 OD 0.032 THK	AR	9
- 3	59647		• SCREW, MACH-HEX HD 1/4-20 X 1 LG	1	2
- 3A	72828		• NUT, SELF LKG, HEX- 8-32 X 0.334 FL W	4	1
- 4	125930		• NUT, PLAIN HEX 10/32	2	2
- 4A	344015		• NUT, SELF LKG, HEX- 6-32 X 5/16 FL W	1	6
- 5	251446		• SCREW, HEADLESS SET, 6-32 X 5/16 LG	55	
- 6	257982		• CLIP, RETAINING	1	
- 7	344015		• NUT, SELF LKG, HEX- 6-32 X 5/16 FL W	2	
- 8	438573		• SCREW, MACHINE FLAT HEAD	2	
- 9	2125974		• WASHER, INT TOOTH, .200 ID X .562 OD	2	
- 10	2157628		• COVER, LEFT HAND TOP	1	7
- 11	2157632		• STAY BRACE, LEFT HAND TOP COVER	1	
- 12	2157639		• SHAFT, LATCH PIVOT, RIGHT HAND COVER	1	
- 13	2157647		• SCREW, MACHINE-BIND. HEAD, 6-32 X 1/4 LG NOT ILLUSTRATED	2	7
- 14	2157665		• SPRING, R.H. COVER, TOP MACHINE	1	
- 15	2157693		• BRACKET, LATCH MOUNTING, R.H. COVER	1	
- 16	2160849		• BRACKET, ACTUATOR, C.E. SWITCH	1	
- 16A	2162500		• LEVER ASSEMBLY, SECTOR BLOCK	1	1
- 17	2162507		• TORSION SPRING, RETRACT MECHANISM	1	2
- 18	2162543		• CRANK ASSEMBLY, RETRACT MECHANISM	1	2
- 19	2162720		• BUSHING, HINGE	4	
- 20	2162721		• HINGE, LH, CE COVER	1	
- 21	2162723		• HINGE, RH, CE COVER	1	
- 22	2162793		• CLAMP PLATE, SPRING	2	
- 23	2162843		• STRIKER, LH COVER	1	3
- 23	2181072		• STRIKE-LEFT HAND COVER	1	4
- 24	2162844		• LATCH, LH COVER	1	3
- 24	2181073		• LATCH-L.H. COVER	1	4
- 25	2162959		• FELT, .062 X .375 WIDE, BULK	AR	
- 26	2162961		• GUIDE, TORSION BAR	2	
- 27	2162962		• SCREW, TEE, 10-32 X 0.97 LG.	2	
- 28	2162963		• BAR, SWITCH	1	
- 29	2162964		• BRACKET, COVER RIGHT	1	
- 30	2162965		• BRACKET, COVER LEFT	1	
- 31	2162966		• LATCH, RH TOP COVER	1	
- 32	2162969		• RING, 0.625 OD, 0.195 ID, 0.125 THICK	4	
- 33	2162972		• WASHER, SPRING, 0.562 OD, 0.208 ID	2	
- 34	2162974		• COVER ASM, TOP	1	
- 35	2157616		• STRIKE, RIGHT HAND TOP COVER	1	
- 36	2162951		• COVER, RH	1	7
- 37	2162953		• CHANNEL, WINDOW	1	3
- 38	2162954		• UNDERCOVER, RH TOP COVER	1	
- 39	2162955		• CLAMP, RH	1	
- 40	2162956		• CLAMP, LH	1	
- 41	2162957		• GLASS, COVER	1	
- 42	2162958		• GLASS, FRONT, COVER	1	
- 43	2162967		• HANDLE, RH TOP COVER	1	
- 44	2162977		• SEAL, TOP COVER	AR	
- 45	2180976		• PACKING, WINDOW	AR	
- 46	2180991		• SUPPORT, GLASS INTERMEDIATE	1	
- 47	2181000		• SCREW, FLATHEAD UNDERCUT, 8-32 X .297 LG	24	
- 48	2181009		• SCREW, FLATHEAD UNDERCUT, 6-32 X .50 LG.	4	
- 49	2181010		• SCREW, FLATHEAD UNDERCUT, 6-32 X .437	2	
- 49A	2181245		• COVER ASSEMBLY-TOP DOOR	1	8
- 49B	2157628		• COVER, LEFT HAND TOP	1	8
- 49C	2162951		• COVER, RH	1	8
- 50	2162977		• SEAL, TOP COVER	AR	
- 51	2162978		• BUMPER, 1.00 X 0.75 X 12.50 LG	1	
- 52	2180471		• FRAME, MAIN	1	

LIST AND INDEX NO.	PART NO.	DESCRIPTION				UNITS PER ASM.	USABLE ON CODE
		1	2	3	4		
TOP COVER FRAME ASSEMBLY -CONT							
*	- 53	2180966	• BAR ASSEMBLY,TORSION-RIGHT HAND			1	3
*	- 53	2181086	• BAR,TORSION-RIGHT HAND			1	4
*	- 54	2180967	• BAR ASSEMBLY,TORSION-LEFT HAND			1	3
*	2 - 54	2181087	• BAR,TORSION-LEFT HAND			1	4
*	- 55	2181005	• SCREW, SELF TAPPING, 6-32 X .375 LG.			6	
*	- 56	2181008	• SCREW, SELF TAPPING, 8-32 X .375 LG.			6	
*	- 57	2181011	• SCREW, SELF TAPPING, 6-32 X .50 LG.			2	
*	- 58	2181012	• SCREW, SELF TAPPING, 8-32 X .437 LG.			2	
*	- 59	2181021	• SCREW, SECTOR BLOCK LEVER			1	2
*	- 59A	2181314	• SHIM,CE COVER HINGE			AR	9
*	- 60	5350006	• SCREW, SELF TAPPING, 6-32 X .250 LONG			2	
*	- 61	5350012	• SCREW, SELF TAPPING, 8-32 X .250 LONG			2	
*	- 62	2162679	• LABEL,INSTRUCTION,PACK LOADING-ENGLISH USED ON 60 CYCLE FINAL ASSEMBLY FEATURE ONLY P/N 2180500			5	
*	- 62	2162679	• LABEL,INSTRUCTION,PACK LOADING-ENGLISH USED ON LANGUAGE GROUP ENGLISH FEATURE ONLY P/N 2180861			1	5
*	- 62	4061678	• LABEL,INSTRUCTION,PACK LOADING-FRENCH USED ON LANGUAGE GROUP FRENCH FEATURE ONLY P/N 2180862			1	5
*	- 62	4061679	• LABEL,INSTRUCTION,PACK LOADING-GERMAN USED ON LANGUAGE GROUP GERMAN FEATURE ONLY P/N 2180863			1	5

FOR PARTS  
NOT SHOWN  
SEE FIG. I

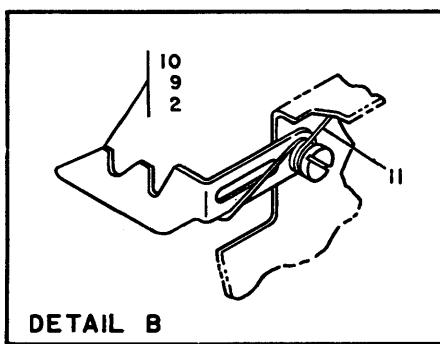
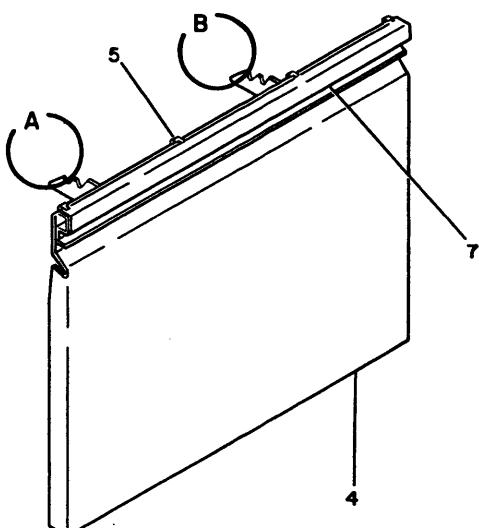
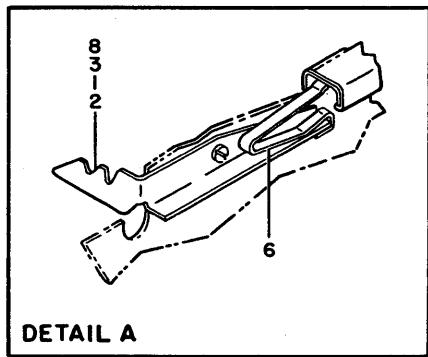


FIGURE 2A. FRONT AND REAR COVER ASSEMBLIES. SEE LIST 2A.

		FRONT AND REAR COVER ASSEMBLIES		
2A-		CODE A USED ON DOMESTIC FRONT COVERS CODE B USED ON DOMESTIC REAR COVERS CODE C USED ON WORLD TRADE FRONT COVERS CODE D USED ON WORLD TRADE REAR COVERS		
-	2180894	FRONT COVER ASSEMBLY-DOMESTIC SEE LIST 1- 92 FOR NEXT HIGHER ASM. AND FIGURE 2A FOR ILLUSTRATION	REF	A
-	2180895	REAR COVER ASSEMBLY-DOMESTIC SEE LIST 1- 92A FOR NEXT HIGHER ASM. AND FIGURE 2A FOR ILLUSTRATION	REF	B
-	2181024	FRONT COVER ASSEMBLY-WORLD TRADE SEE LIST 1- 92 FOR NEXT HIGHER ASM. AND FIGURE 2A FOR ILLUSTRATION	REF	C
-	2181027	REAR COVER ASSEMBLY-WORLD TRADE SEE LIST 1- 92A FOR NEXT HIGHER ASM. AND FIGURE 2A FOR ILLUSTRATION	REF	D
- 1	45690	• WASHER, FL - NO.10 X 7/16 OD X 1/32 THK	2	
- 2	125930	• NUT, PLAIN HEX 10/32	2	
- 3	332620	• SCREW, MACH-BIND HD 10-32 X 1/2 LG	2	A
- 3	332620	• SCREW, MACH-BIND HD 10-32 X 1/2 LG	2	B
- 3	332620	• SCREW, MACH-BIND HD 10-32 X 1/2 LG	1	C
- 3	332620	• SCREW, MACH-BIND HD 10-32 X 1/2 LG	1	D
- 4	2180896	• COVER, FRONT	1	A
- 4	2180897	• COVER, REAR	1	B
- 4	2180896	• COVER, FRONT	1	C
- 4	2180897	• COVER, REAR	1	D
- 5	2180962	• CLIP, COVER TRIM	4	
- 6	2180963	• SPRING, LATCH	2	A
- 6	2180963	• SPRING, LATCH	2	B
- 6	2180963	• SPRING, LATCH	1	C
- 6	2180963	• SPRING, LATCH	1	D
- 7	2180964	• TRIM, COVER	1	
- 8	2180965	• LEVER, COVER	2	A
- 8	2180965	• LEVER, COVER	2	B
- 8	2180965	• LEVER, COVER	1	C
- 8	2180965	• LEVER, COVER	1	D
- 9	55918	• SCREW, MACH-BIND HD 10-32 X 5/8 LG	1	
- 9	55918	• SCREW, MACH-BIND HD 10-32 X 5/8 LG	1	
- 10	2181028	• LATCH, COVER-TOOL OPERATED	1	
- 10	2181028	• LATCH, COVER-TOOL OPERATED	1	
- 11	2181029	• SPRING, TORSION-COVER LATCH	1	C
- 11	2181029	• SPRING, TORSION-COVER LATCH	1	D

FOR PARTS  
NOT SHOWN  
SEE FIG. I

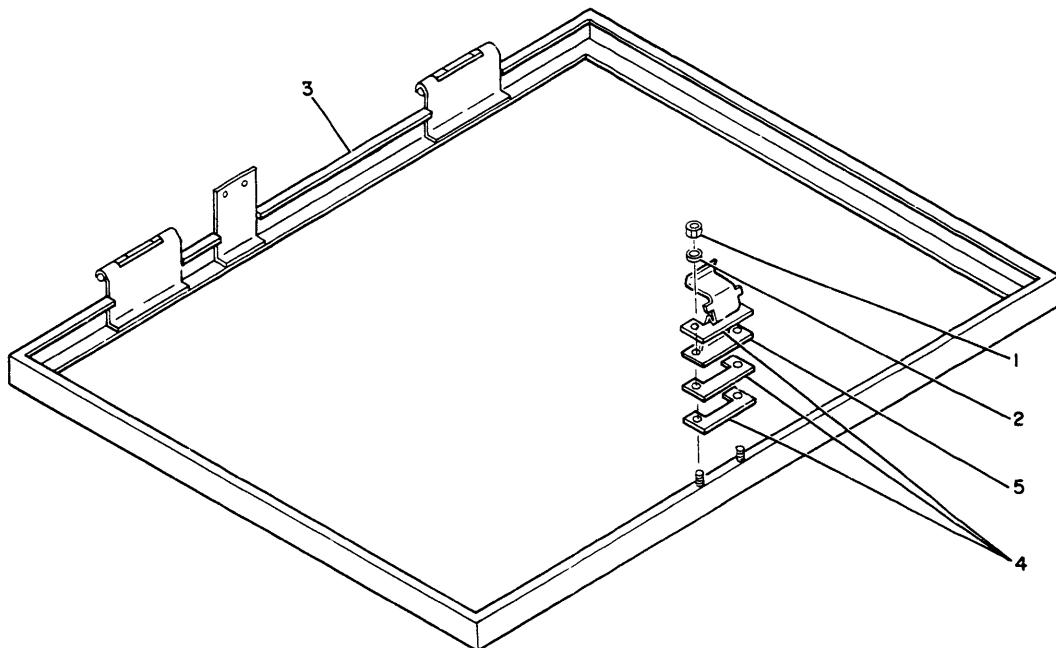


FIGURE 3. TOP COVER SKIRT ASSEMBLY. SEE LIST 3.

LIST AND INDEX NO.	PART NO.	1	2	3	4	DESCRIPTION	UNITS PER ASM.	USABLE ON CODE
TOP. COVER SKIRT ASSEMBLY								
3 -						CODE 1 USED ON ASM PRIOR TO B6 SUFFIX		
-	2157620					SKIRT ASSEMBLY, TOP COVER SEE LIST 1- 34 FOR NEXT HIGHER ASM. AND FIGURE 3 FOR ILLUSTRATION	REF	
- 1	257189					• NUT, HEX., 8-32 X 0.3438 W	2	
- 2	1090873					• WASHER, LOCK, 0.168 ID X 0.296 OD	2	
- 3	2157615					• SKIRT, TOP COVER	1	
- 3A	216472					• RESISTOR	2	
- 4	2162793					• CLAMP PLATE, SPRING	2	
- 4A	2162793					• CLAMP PLATE, SPRING	1	
- 5	2162807					• LATCH CENTER COVER	1	1

FOR PARTS  
NOT SHOWN  
SEE FIG. 1

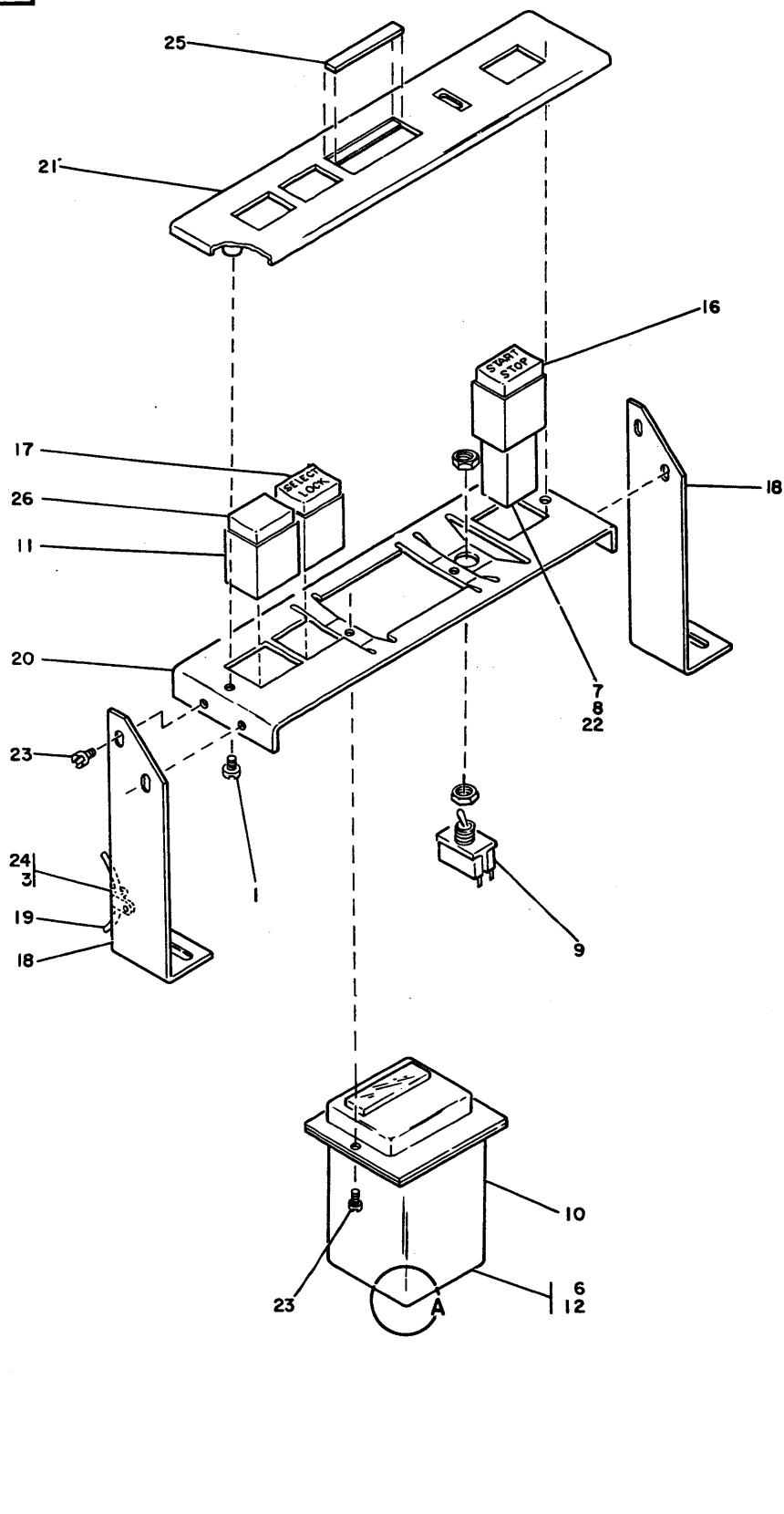


FIGURE 4. CONSOLE SWITCH ASSEMBLY. SEE LIST 4.

LIST AND INDEX NO.	PART NO.	1 2 3 4	DESCRIPTION	UNITS PER ASM.	USABLE ON CODE			
CONSOLE SWITCH ASSEMBLY								
<p>* 4 - CODE A USED ON 60 CYCLE MACHINES - PRIOR TO L5 SUFFIX</p> <p>* * CODE B USED ON 50 CYCLE MACHINES - PRIOR TO L5 SUFFIX</p> <p>* * CODE 1 USED ON ASM PRIOR TO G5 SUFFIX</p>								
*	2180918		SWITCH ASSEMBLY, CONSOLE, 60 CYCLE SEE LIST 1- 81 FOR NEXT HIGHER ASM. AND FIGURE 4 FOR ILLUSTRATION	REF	A			
*	2180919		SWITCH ASSEMBLY, CONSOLE, 50 CYCLE SEE LIST 1- 81 FOR NEXT HIGHER ASM. AND FIGURE 4 FOR ILLUSTRATION	REF	B			
- 1	38235		. SCREW,MACH-FIL H 6-32 X 5/16 LG	2				
- 2	55901		. LOCKWASHER, EXTERNAL TOOTH	1	1			
- 3	58207		. SCREW,MACH BNDG HD 8-32 X 1/4 LG	1				
- 4	213536		. RESISTOR,FXD,COMP- 100 OHMS P/M 5% 1/2W	1				
- 5	257187		. NUT,HEX DOUBLE CHAMFERED 6-36 X 5/16	1				
- 6	320610		. RESISTOR, FXD, COMP, 180 OHM P/M 5% 2W	3				
- 7	473629		. HOUSING, LAMP	1				
- 8	719552		. SWITCH,ALTERNATE ACTION	1				
- 9	738826		. SWITCH, TOGGLE	1				
- 10	740503		. CLOCK, 60 CYCLE	1				
- 10	740608		. CLOCK, 50 CYCLE	1				
- 11	760521		. HOUSING, LIGHT, MICROSWITCH	2				
- 12	2101569		. TUBING, INSULATING-BULK	AR				
- 13	2102374		. CAPACITOR, PAPER, 1.0 MFD P30/M20% 200V	1				
- 14	2103416		. TUBING, INSULATING	AR				
- 15	2119605		. TUBING	AR				
- 16	2154545		. LENS, START STOP, ENGLISH	1				
- 16	4061423		. LENS, START STOP, FRENCH	1				
- 17	2157359		. BUTTON, SELECT LOCK, ENGLISH	1				
- 17	4061426		. BUTTON, SELECT LOCK, GERMAN	1				
- 17	4061427		. BUTTON, SELECT LOCK, FRENCH	1				
- 18	2157602		. BRACKET, SWITCH MOUNTING	2				
- 19	2180684		. CABLE ASSEMBLY, PANEL TO SWITCHES SEE LIST 19-5, 6D, 7A, 8, 17B, 37, 37A, 57 AND 78 FOR COMPONENT PARTS	1				
- 20	2130920		. BRACKET, SWITCH AND METER	1				
- 21	2180921		. FACE PLATE, SWITCH PANEL	1				
- 22	2414924		. LAMP, INDICATOR, INCANDESCENT	6				
- 23	5319854		. SCREW, SELF TAPPING, 8-32 X .375 LONG	6				
- 24	NO NO.		. CABLE CLAMP, SEE LIST 19-1	AR				
- 25	740490		DECAL SEE LIST 1- 27 FOR NEXT HIGHER ASM.	REF				
- 26	2154534		BUTTON, NUMBER 0	REF				
- 26	2154540		BUTTON, NUMBER 1	REF				
- 26	2154541		BUTTON, NUMBER 2	REF				
- 26	2154542		BUTTON, NUMBER 3	REF				
- 26	2154543		BUTTON, NUMBER 4	REF				
- 26	2162847		BUTTON, NUMBER 6	REF				
- 26	2162848		BUTTON, NUMBER 8	REF				
- 26	2180781		BUTTON, NUMBER 5	REF				
- 26	2180782		BUTTON, NUMBER 7 SEE LIST 1- 33 FOR NEXT HIGHER ASM.	REF				

FOR PARTS  
NOT SHOWN  
SEE FIG. I

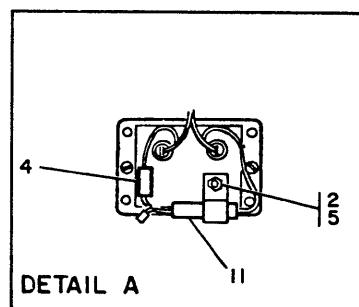
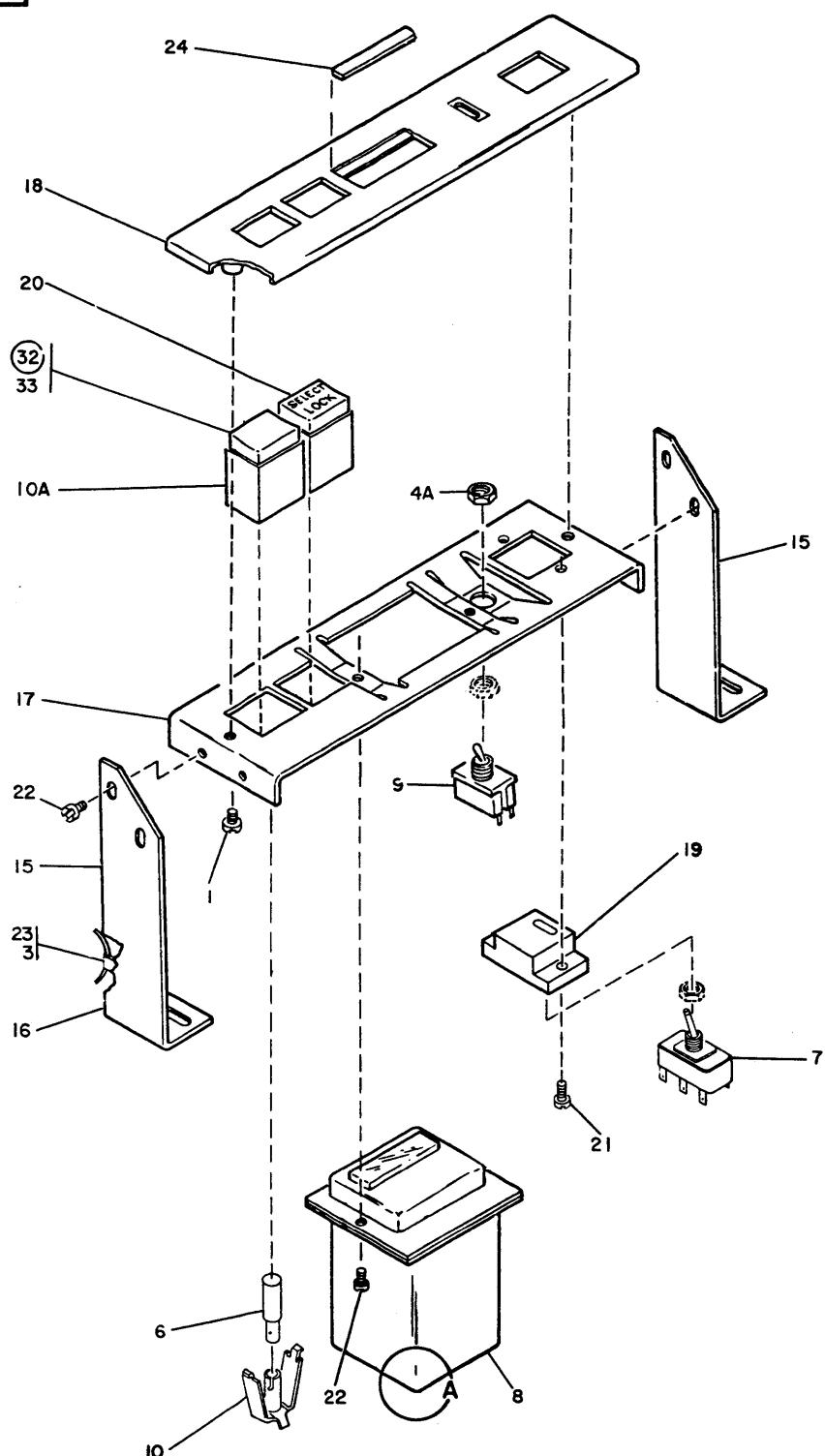


FIGURE 4A. CONSOLE SWITCH ASSEMBLY. SEE LIST 4A.

LIST AND INDEX NO.	PART NO.	DESCRIPTION	UNITS PER ASM.	USABLE ON CODE	
		1 2 3 4			
		CONSOLE SWITCH ASSEMBLY			
* 4A-		CCDE A USED ON 60 CYCLE MACHINES - FROM L5 SUFFIX TO CURRENT CODE B USED ON 50 CYCLE MACHINES - FROM L5 SUFFIX TO CURRENT CODE C USED ON 50 CYCLE LANGUAGE GROUP - ENGLISH FEATURE ONLY P/N 2180861 CODE D USED ON 50 CYCLE LANGUAGE GROUP - FRENCH FEATURE ONLY P/N 218062 CODE E USED ON 50 CYCLE LANGUAGE GROUP - GERMAN FEATURE ONLY P/N 2180863 CODE 1 USED ON ASM FROM L5 TO P5 SUFFIX CODE 2 USED ON ASM FROM L5 TO S5 SUFFIX CODE 3 USED ON ASM FROM P5 TO C6 SUFFIX CODE 4 USED ON ASM FROM S5 TO CURRENT CODE 5 USED ON ASM FROM C6 TO CURRENT CODE 6 USED ON ASM PRIOR TO P6 SUFFIX CODE 7 USED ON ASM FROM P6 TO CURRENT -			
* -	2180918	SWITCH ASSEMBLY, CONSOLE, 60 CYCLE SEE LIST 1- 81 FOR NEXT HIGHER ASM. AND FIGURE 4A FOR ILLUSTRATION	REF	A	
* -	2180919	SWITCH ASSEMBLY, CONSOLE, 50 CYCLE SEE LIST 1- 81 FOR NEXT HIGHER ASM. AND FIGURE 4A FOR ILLUSTRATION	REF	B	
- 1	38235	. SCREW,MACH-FIL H 6-32 X 5/16 LG	2		
- 2	55901	. LOCKWASHER, EXTERNAL TOOTH	1	1	
- 3	58207	. SCREW,MACH BNDG HD 8-32 X 1/4 LG	1		
- 4	213536	. RESISTOR,FXO,COMP- 100 OHMS P/M 5% 1/2W	1		
- 4A	220546	. NUT,PLAIN,HEX- 15/32-32 X 5/8 FL W	1	5	
- 5	257189	. NUT - HEX-8-32UNC THD	1	3	
- 6	316455	. LAMP, BAYONET BASE, 35V, .05 AMP	1	6	
- 6	5362163	. LAMP,INDICATOR -48VDC-.060 AMPS-BAYONET	7		
- 7	734879	. SWITCH, TOGGLE, DPDT	1	2A	
- 7	725347	. SWITCH,TOGGLE-SPDT	1	4A	
- 7	734879	. SWITCH, TOGGLE, DPDT,	REF	1	
- 7	725347	. SWITCH,TOGGLE-SPDT USED ON 50 CYCLE FINAL ASSEMBLY FEATURE ONLY P/N 2180850 SEE LIST 1- 26A FOR NEXT HIGHER ASM.	REF	3	
- 7	725347	. SWITCH,TOGGLE-SPDT	1	5B	
- 8	740503	. CLOCK, 60 CYCLE	1	A	
- 8	740608	. CLOCK, 50 CYCLE	1	B	
- 9	741349	. SWITCH, TOGGLE	1		
- 10	827840	. SOCKET, SINGLE CONTACT, BAYONET BASE	2		
- 10A	827841	. HOUSING-SWITCH AND LIGHT	2	2	
- 11	2102374	. CAPACITOR, PAPER, 1.0 MFD P30/M20% 200V INDEXES 12 THRU 14 DELETED	1		
- 15	2157602	. BRACKET, SWITCH MOUNTING	2		
- 16	2180684	. CABLE ASSEMBLY, PANEL TO SWITCHES SEE LIST 19-5, 60, 7A, 8, 17B, 37, 37A, 57 AND 78 FOR COMPONENT PARTS	1		
- 17	2180920	. BRACKET, SWITCH AND METER	1		
- 18	2180921	. FACE PLATE, SWITCH PANEL	1		
- 18	2180921	. FACE PLATE, SWITCH PANEL	1	C	
- 18	2181249	. FACE PLATE,SWITCH PANEL-FRENCH	1	D	
- 18	2181250	. FACE PLATE,SWITCH PANEL-GERMAN	1	E	
- 19	2180938	. HOUSING, SWITCH, START-STOP, ENGLISH	1	A	
- 19	2180938	. HOUSING, SWITCH, START-STOP, ENGLISH	1	C	
- 19	2180939	. HOUSING, SWITCH, START-STOP, FRENCH	1	D	
- 19	2180938	. HOUSING, SWITCH, START-STOP, GERMAN	1	E	
- 20	2180948	. LENS, SELECT LOCK, ENGLISH	1	A	
- 20	2180948	. LENS, SELECT LOCK, ENGLISH	1	C	
- 20	2180950	. LENS, SELECT LOCK, FRENCH	1	D	
- 20	2180949	. LENS, SELECT LOCK, GERMAN	1	E	
- 21	2181012	. SCREW, SELF TAPPING, 8-32 X .437 LG.	2	A	
- 22	5319854	. SCREW, SELF TAPPING, 8-32 X .375 LONG	6		
- 23	NO NO.	. CABLE CLAMP, SEE LIST 19-1			
- 24	740490	DECAL SEE LIST 1- 27 FOR NEXT HIGHER ASM. INDEXES 25 THRU 31 DELETED	AR REF		

LIST AND INDEX NO.	PART NO.	1 2 3 4	DESCRIPTION	UNITS PER ASM.	USABLE ON CODE
			CONSOLE SWITCH ASSEMBLY -CONT		
4A- 32	2133900		BUTTON, IDENTIFICATION-DRIVE NO. 0	REF	
- 32	2133901		BUTTON, IDENTIFICATION-DRIVE NO. 1	REF	
- 32	2133902		BUTTON, IDENTIFICATION-DRIVE NO. 2	REF	
- 32	2133903		BUTTON, IDENTIFICATION-DRIVE NO. 3	REF	
- 32	2133904		BUTTON, IDENTIFICATION-DRIVE NO. 4	REF	
- 32	2133905		BUTTON, IDENTIFICATION-DRIVE NO. 5	REF	
- 32	2133906		BUTTON, IDENTIFICATION-DRIVE NO. 6	REF	
- 32	2133907		BUTTON, IDENTIFICATION-DRIVE NO. 7	REF	
- 33	2180940		• LENS, NUMBER 0 USED ON SELECTIVE BUTTON FEATURE 2133900	1	
- 33	2180941		• LENS, NUMBER 1 USED ON SELECTIVE BUTTON FEATURE 2133901	1	
- 33	2180942		• LENS, NUMBER 2 USED ON SELECTIVE BUTTON FEATURE 2133902	1	
- 33	2180943		• LENS, NUMBER 3 USED ON SELECTIVE BUTTON FEATURE 2133903	1	
- 33	2180944		• LENS, NUMBER 4 USED ON SELECTIVE BUTTON FEATURE 2133904	1	
- 33	2180945		• LENS, NUMBER 5 USED ON SELECTIVE BUTTON FEATURE 2133905	1	
- 33	2180946		• LENS, NUMBER 6 USED ON SELECTIVE BUTTON FEATURE 2133906	1	
- 33	2180947		• LENS, NUMBER 7 USED ON SELECTIVE BUTTON FEATURE 2133907	1	

FOR PARTS  
NOT SHOWN  
SEE FIG. 1

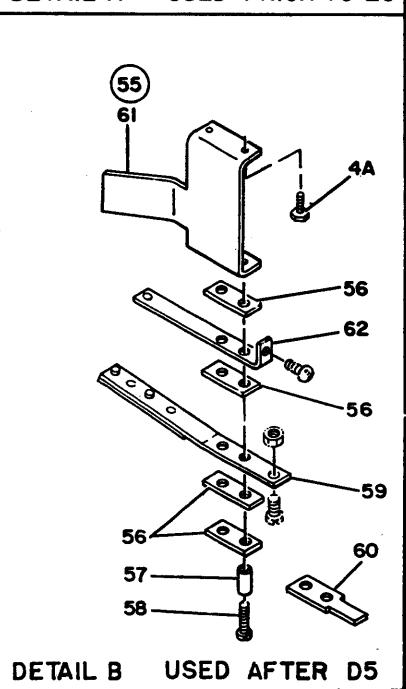
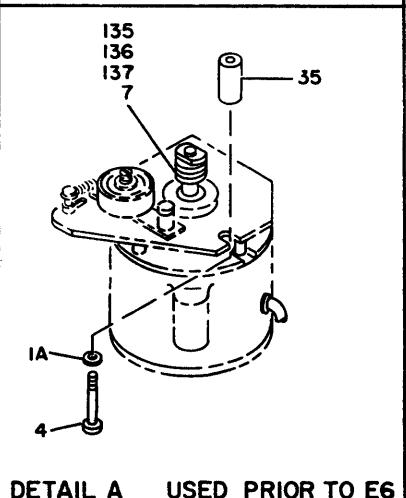
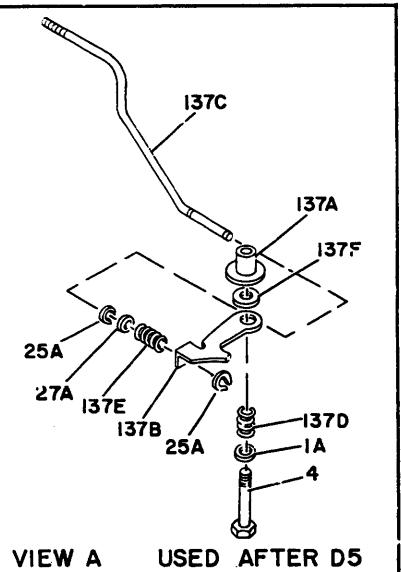
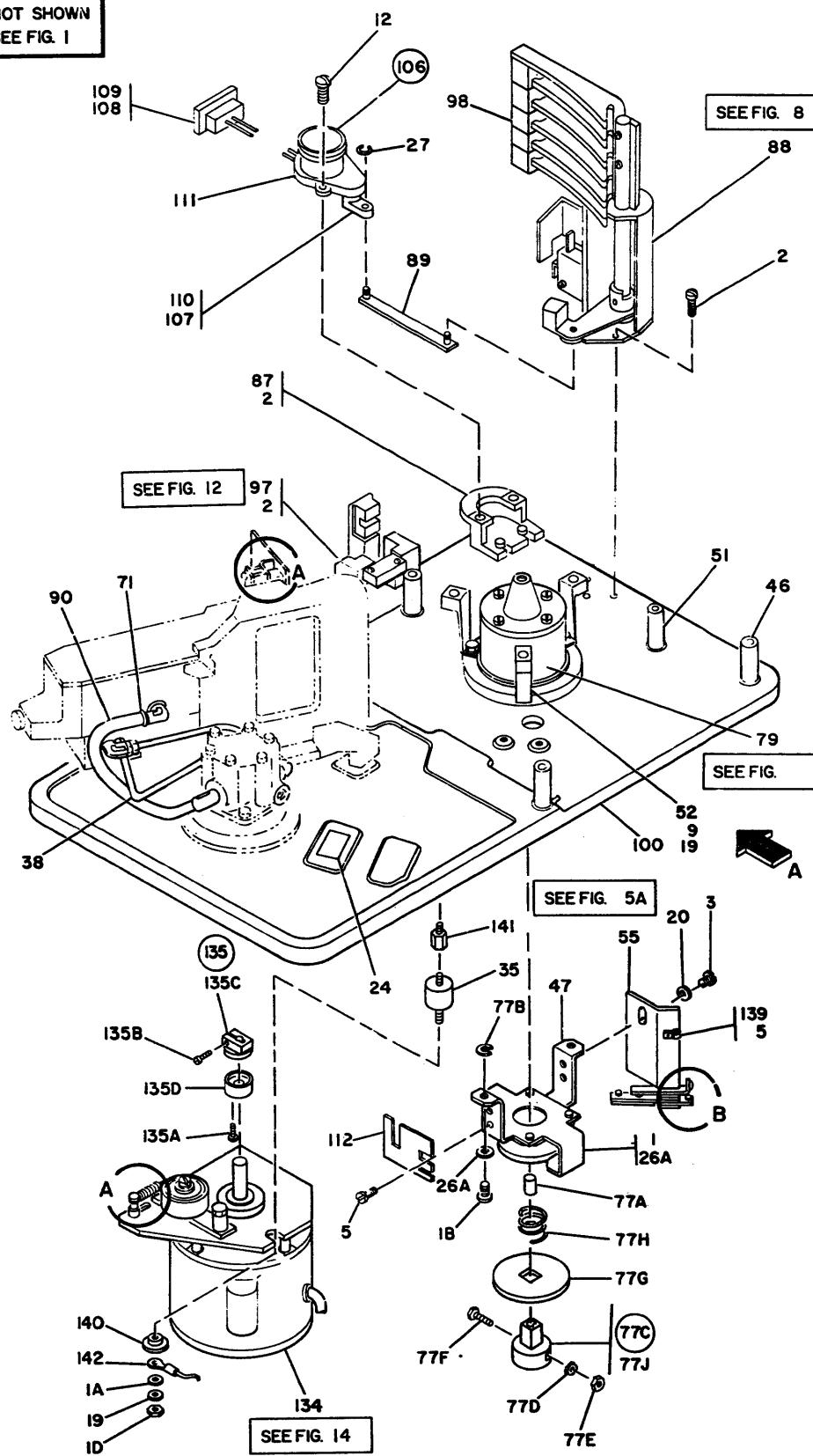


FIGURE 5. DISK STORAGE FILE ASSEMBLY. SHEET 1 OF 3. SEE LIST 5.

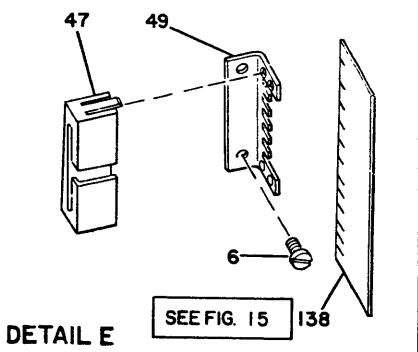
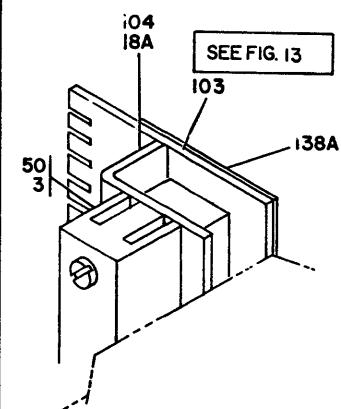
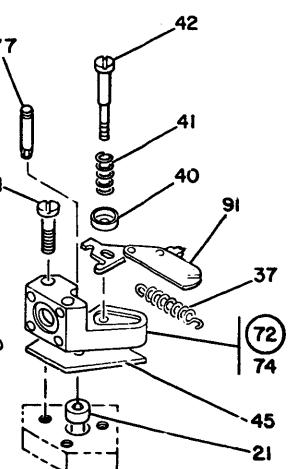
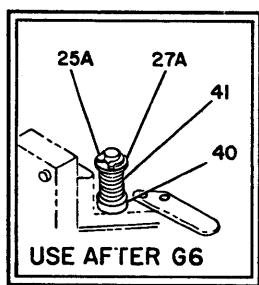
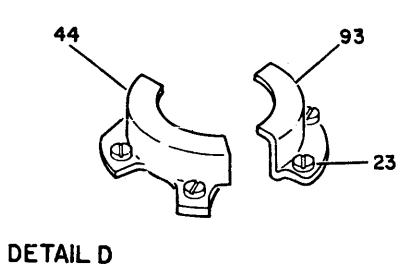
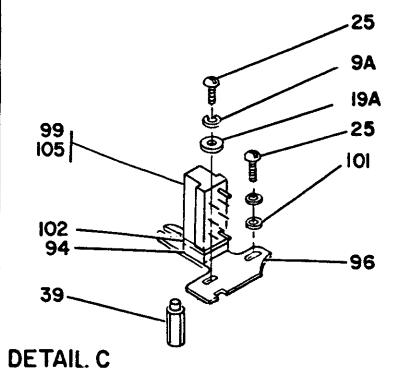
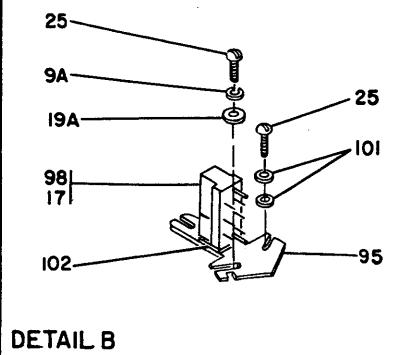
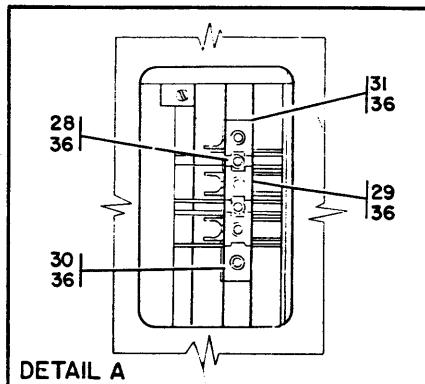
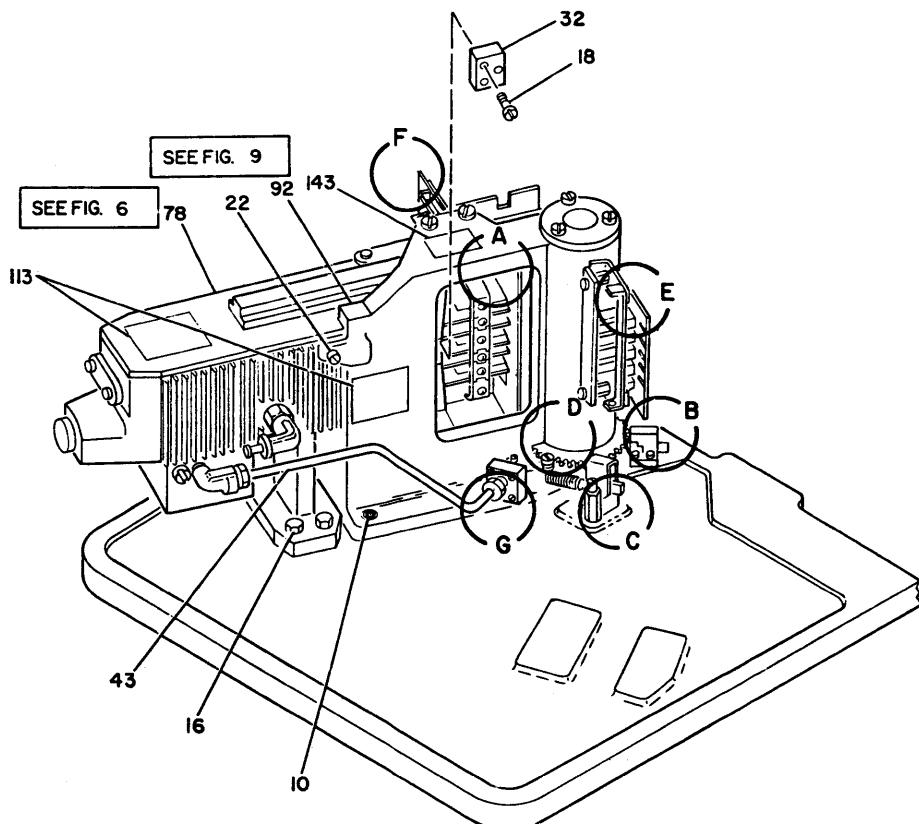


FIGURE 5. DISK STORAGE FILE ASSEMBLY. SHEET 2 OF 3. SEE LIST 5.

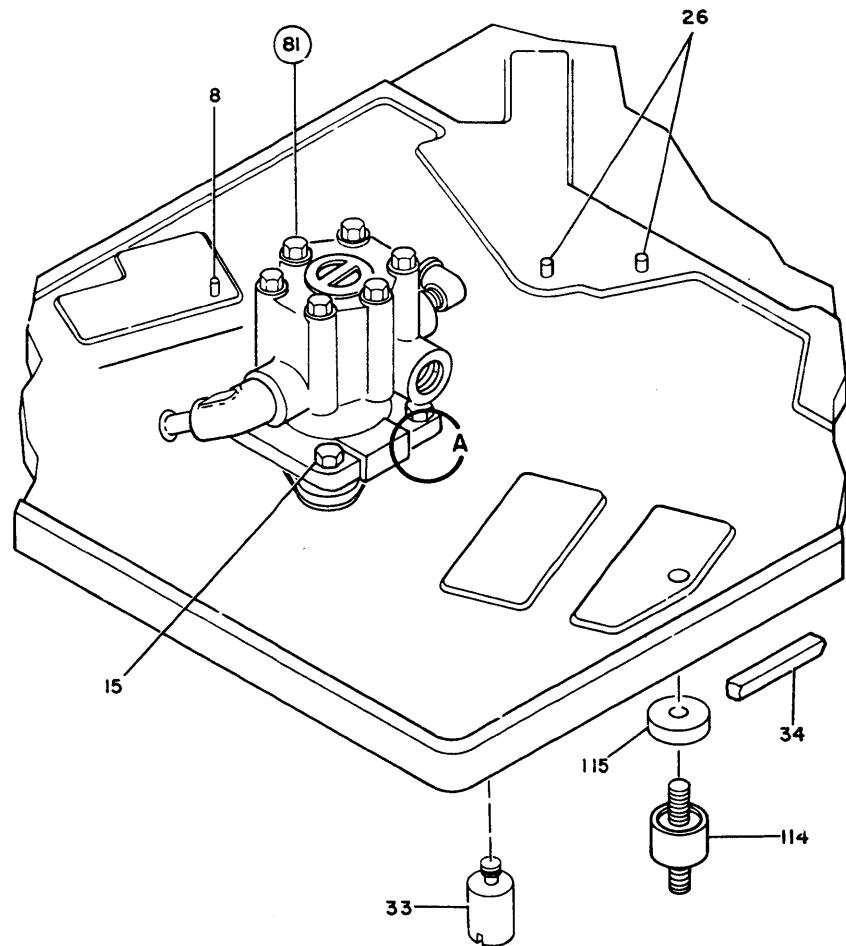
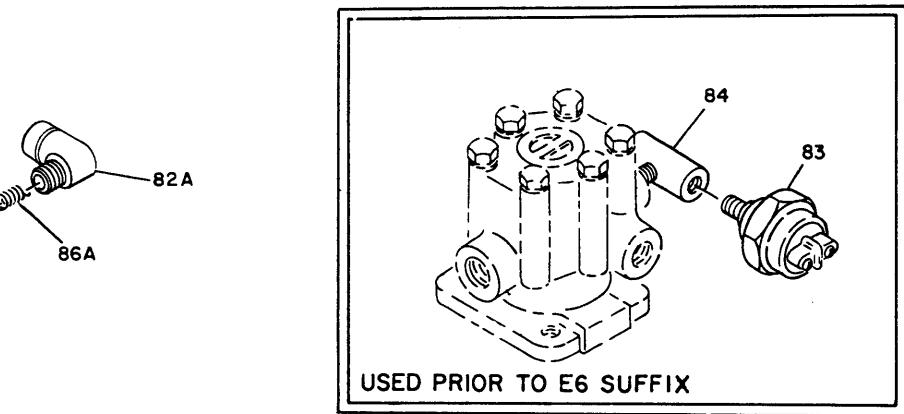
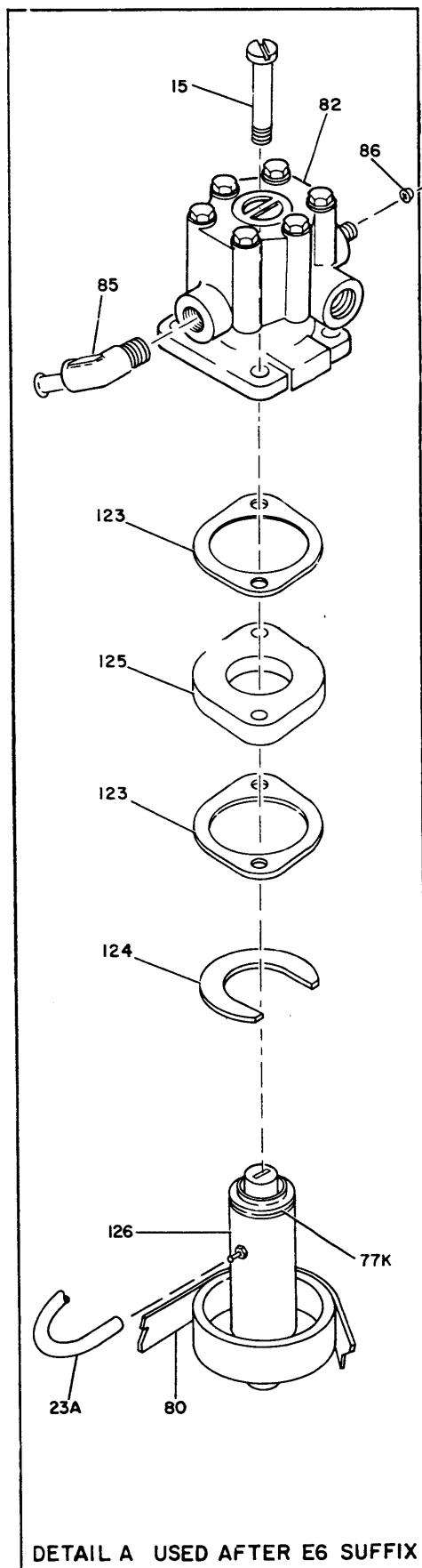


FIGURE 5. DISK STORAGE FILE ASSEMBLY. SHEET 3 OF 3. SEE LIST 5.

DISK STORAGE DRIVE FILE ASSEMBLY		
* 5 -	CODE A USED ON 60 CYCLE MACHINES CODE B USED ON 50 CYCLE MACHINES CODE 1 USED ON ASM PRIOR TO G5 SUFFIX CODE 2 USED ON ASM FROM G5 TO CURRENT CODE 3 USED ON ASM FROM G5 TO E6 SUFFIX CODE 4 USED ON ASM PRIOR TO E6 SUFFIX CODE 5 USED ON ASM FROM E6 TO CURRENT CODE 6 USED ON ASM FROM E6 TO B7 SUFFIX CODE 7 USED ON ASM PRIOR TO B7 SUFFIX CODE 8 USED ON ASM FROM B7 TO CURRENT	
* -	FILE ASSEMBLY, 60 CYCLE SEE LIST 1- 41 FOR NEXT HIGHER ASM. AND FIGURE 5 FOR ILLUSTRATION	REF A
* -	FILE ASSEMBLY, 50 CYCLE SEE LIST 1- 41 FOR NEXT HIGHER ASM. AND FIGURE 5 FOR ILLUSTRATION	REF B
- 1 337	SCREW,MACH-FIL H 8-32 X 3/8 LG	4 1
- 1A 453	WASHER,FL- 3/8 X 13/16 OD X 1/16 THK	3 2
- 1B 845	SCREW,MACH-FIL H 8-32 X 1/2 LG	2 1
- 1C 3550	WASHER,FL- 1/4 X 9/16 OD X 0.050 THK	1 2
- 1D 4564	NUT-AIR INTAKE	3 5
- 2 5528	SCREW,MACH-BIND. HD 8-32 X 5/8 LG	8
- 3 10170	SCREW-MACH,BIND HD NO. 6-32 X .250 LG	4 1
- 3 10170	SCREW-MACH,BIND HD NO. 6-32 X .250 LG	2 2
- 4 15544	SCREW,MACH HEX HD 3/8-16 X 2-1/4 LG	3 4
- 4A 19852	SCREW,MACH-HEX HD 1/4-20 X 1 1/4 LG	1 2
- 5 38235	SCREW MACH 6/32 X .310 LG	3 1
- 6 55726	SCREW, MACH-BIND HD NO. 6-32 X 3/16 LG	2
- 7 101706	SCREW,MACH-HEX HD 10-32 X 3/4 LG	1 1
- 7 129654	SCREW,CAP,SOC HD- 10-32 X 3/4 LG	1 3
- 8 104706	PIN, DOWEL, 1/4 OD X 1/2 LG	1
- 9 122740	SCREW,CAP,SOC HD- 5/16-18 X 1 LG	3
- 9A 150209	WASHER,STAR- 0.115, 0.270 M	2 1
- 10 169733	SCREW,CAP,SOC HD- 1/4-20 X 0.650 LG	3
- 11 2121358	SCREW,CAP,SOC HD- 4-40 X 1 LG	2 1
- 11 170185	SCREW AND LOCKWASHER, 4-40 X 1 LG	2 2
- 12 170215	SCREW AND LOCKWASHER, 6-32 X 3/8 LG	2
- 14 234319	INDEXES 13 AND 14 DELETED	
- 15 234345	SCREW,ASMD WASHER-FIL H 8-32 X 7/16 LG	2 2
- 15 170530	SCREW,ASMD WASHER-FIL HD 1/4-20 X 1-1/4	2 7
- 16 234349	SCREW,MACH-SLOT HEX HD 1/4-20 X 1 3/4 LG	2 6
- 17 236529	SCREW,ASSEM WASH-HEX HD 5/16-18 X 1 LG	3
- 18 236550	SCREW,TAP,THD CTG-FLAT CSK HD 3/8 LG	2
- 18A 251970	SCREW,MACH BINDING HD 4-40 X 0.375 LG	3
- 19 257983	SCREW-MACH BD. HD. 4-40 X 1/4 LG	1 5
- 19 257983	WASHER,LOCK-SPLIT 0.319 ID X 0.591 OD	3 4
- 19A 257985	WASHER,LOCK-SPLIT 0.319 ID X 0.591 OD	6 5
- 20 257986	WASHER,FLAT-NO. 4 X 0.250 OD X 0.028 THK	2 1
- 21 317464	WASHER,FLAT NO. 6	2 1
- 22 332620	SCREW,CAP,SOC HD- 1/4-20 X 5/8 LG	1
- 23 338238	SCREW, MACH-BIND HD NO. 10-32 X 1/2 LG	1
- 23A 359044	SCREW, MACHINE-BIND HD, 4-40 X 5/16 LG	4
- 24 369207	SEE LIST 1- 22A FOR NEXT HIGHER ASM.	REF
- 25 438550	LABEL, VOLTAGE	1
- 25A 1073418	SCREW,MACH-BIND HD 4-40 X 0.5 LG	4
- 26 1077739	RING-RETAINING	3 2
- 26A 1090873	PIN,SPRING	3
- 27 1092125	WASHER-SPLIT LOCK-NO.8	6 1
- 27A 2154149	RING,LOCKING	2
- 28 2154201	WASHER, SOLENOID SPRING	2 2
- 29 2154202	CLAMP, CENTER ARM, SMALL	4
- 30 2154238	CLAMP, CENTER ARM, LARGE	4
- 31 2154239	CLAMP ARM	2
- 32 2154244	CLAMP, CARRIAGE DRIVE ROD	2
- 33 2154251	POST, BELT GUARD, 1.625 LG X 3/4 DIA	1
- 33 2154251	POST, BELT GUARD, 1.625 LG X 3/4 DIA	1 2
- 34 2154358	SEAL, BASE PLATE	8
- 35 2154360	SPACER, MOTOR PLATE, 1.687 LG X 3/4 DIA	3 4
- 35 2180916	MOUNT, SHOCK	3 5
- 36 2154374	SCREW,SOCKET HEAD CAP- 4-40 X 0.938 LG	12
- 37 2154418	SPRING, EXTENSION, DETENT ARM, 1.200 LG	1 1
- 37 2181186	SPRING-DETENT ARM	1 2
- 38 2154451	TUBE, PRESSURE LINE	1
- 39 2154453	STUD, DETENT ARM SPRING, 8-32 X 1.03 LG	1 1
- 39 2181209	STOP-SPRING	1
- 40 2154457	WASHER, FLAT, 0.312 DIA	1 2
- 41 2154459	SPRING, COMPRESSION, 0.543 LG X 0.218DIA	1
- 42 2154461	PIVOT, DETENT ARM, 4-40 X 1.26 LG	1 1
- 43 2157307	TUBE, DETENT	1
- 44 2157340	COVER, SLOTTED WHEEL REAR	1
- 45 2157354	SHIM, DETENT ACTUATOR	1
- 46 2160717	SUPPORT, DISK SHROUD	3
- 47 2160863	BRACKET,SPINDLE BRAKE MOUNTING	1 1
- 48 2160867	BRAKE, MAGNETIC	1 1
- 49 2160961	BRACKET, HEAD CABLE	1

LIST AND INDEX NO.	PART NO.	1 2 3 4	DESCRIPTION	UNITS PER ASM.	USABLE ON CODE
DISK STORAGE DRIVE FILE ASSEMBLY -CONT					
5 - 50	2160963		• RETAINER, HEAD CABLE SOCKET	2	
- 51	2162533		• SUPPORT, PLENUM	1	
- 52	2162535		• SUPPORT, PLENUM FILTER INDEXES 53 ANC 54 DELETED	3	
* - 55	2162669		• SWITCH ASM., PACK-IN-PLACE SEE LIST 5A FOR DETAIL BREAKDOWN	1	1
* - 55	2181059		• SWITCH ASSEMBLY, PACK-IN-PLACE	1	2
* - 56	1974		• • INSULATOR-STOP KEY CONT SPRING SUPPORT	2	
* - 57	186842		• • INSULATOR-SCR 0.128 ID 0.186 OD 0.520 LG	2	3
* - 58	438552		• • SCREW,MACH-BIND HD 4-40 X 3/4 LG	2	3
* - 59	2181044		• • CONTACT ASSEMBLY, SPRING	1	3
* - 60	2181046		• • TERMINAL, SWITCH	2	
* - 61	2181051		• • BRACKET, SWITCH	1	3
* - 62	2181055		• • STRAP ASSEMBLY, CONTACT INDEXES 63 THRU 70 DELETED	1	
* - 71	2162802		• CLAMP, HOSE	2	
* - 71	4C61518		• CLAMP,HOSE SUBSTITUTE FOR P/N 2162802	2	
* - 72	2162872		• DETENT ASSEMBLY, ACTUATOR	1	
- 73	170176		• • SCREW	4	
- 73A	2157308		• • HEAD, DETENT ACTUATOR	1	
- 74	2154316		• • HOUSING, ACTUATOR DETENT	1	
- 75	2154317		• • PLUNGER, DETENT ACTUATOR	1	
- 76	2154318		• • DIAPHRAGM, DETENT ACTUATOR	1	
- 77	2162774		• • PIVOT, DETENT ARM	1	
* - 77A	2162883		• SPACER , BRAKE	1	1
* - 77B	2162884		• SHIM	2	1
* - 77C	2162886		• HUB ASM.-BRAKE	1	1
* - 77D	62031		• • WASHER,LOCK-INT TEETH NO. 6 X 0.295 OD	1	1
* - 77E	257187		• • MACHINE SCREW HEXAGON	1	1
* - 77F	322552		• • SCREW,MACH-BINC HD 6-32 X 7/8 LG	1	1
* - 77G	2162728		• • ARMATURE - BRAKE	1	1
* - 77H	2162878		• • SPRING , HELICAL COMPRESSION	1	
* - 77J	2162885		• • HUB - BRAKE	1	
* - 77K	2173758		• O-RING- 1-109 ID X 0.139IN. DIA CRS SECT	1	8
* - 78	2180410		• ACTUATOR ASSEMBLY, HYDRAULIC	1	4
* - 78	2181274		• ACTUATOR ASSEMBLY-HYDRAULIC	1	5
* - 78	2181274		• ACTUATOR ASSEMBLY-HYDRAULIC SEE LIST 6 FOR DETAIL BREAKDOWN	1	6
- 79	2180420		• SPINDLE ASM,DISK PACK SEE LIST 7 FOR DETAIL BREAKDOWN	1	1
* - 79	2181062		• SPINDLE ASM, DISK PACK SEE LIST 7 FOR DETAIL BREAKDOWN	1	3
* - 79	2218674		• SPINDLE ASSEMBLY SEE LIST 7 FOR DETAIL BREAKDOWN	1	5
- 80	2180439		• BELT, FLAT DRIVE, 60 CYCLE	1	A
- 80	2180889		• BELT, FLAT DRIVE, 50 CYCLE	1	B
* - 81	2180472		• PUMP ASSEMBLY, HYDRAULIC	1	
* - 82	2154448		• • PUMP, HYDRAULIC	1	
* - 82A	2154456		• • ELBCW, BRASS, .438-24 FEMALE, 250-18 MAL	1	5
* - 83	2160864		• • PRESSURE SWITCH ASSEMBLY, N/C	1	
* - 83	2181146		• • SWITCH,PRESSURE,N/C	1	3
* - 84	2160866		• • TEE, MALE, 1-1/8 LG	1	1
* - 85	2180492		• • ELBCW, BRASS, .25 NPT X 1.38 LONG	1	4
* - 85	2181239		• • FITTING,ELBOW- 90 DEGREE PIPE TO TUBE	1	5
* - 86	2181288		• • VALVE	1	5
* - 86A	2181289		• • SPRING,HELICAL COMPRESSION	1	
* - 87	2180478		• MOUNT, BRUSH MOTOR	1	
* - 88	2180480		• PIVOT ASSEMBLY, BRUSH SEE LIST 8 FOR DETAIL BREAKDOWN	1	
* - 89	2180486		• LINK ASSEMBLY, BRUSH ACTUATOR	1	
* - 90	2180491		• TUBE, .375 ID X 4.125 LONG	1	4
* - 90	2181273		• TUBE-HYDRAULIC	1	5
* - 91	2180511		• ARM ASSEMBLY, DETENT	1	
* - 92	2180520		• CARRIAGE AND CARRIAGE HOUSING ASSEMBLY SEE LIST 9 FOR DETAIL BREAKDOWN	1	
* - 93	2180521		• COVER, SLOTTED WHEEL FRONT	1	
* - 94	218C522		• SPACER, DETENT TRANSDUCER	1	
* - 95	2180524		• PLATE,DETENT TRANSDUCER	1	
* - 96	2180526		• PLATE,CYLINDER TRANSDUCER	1	
* - 97	2180531		• SUPPORT-TRANSDUCER ASSEMBLY,INDEX SEE LIST 12 FOR DETAIL BREAKDOWN	1	

LIST AND INDEX NO.	PART NO.	DESCRIPTION	UNITS PER ASM.	USABLE ON CODE
		1 2 3 4		
DISK STORAGE DRIVE FILE ASSEMBLY -CONT				
*	5 - 98	2180611	1	
*	- 99	2180612	1	
*	-100	2180624	1	
*	-101	2180702	4	1
*	-101	2180702	8	2
*	-102	2180709	AR	
*	-103	2180749	1	1
*	-103	2181149	1	3
*	-103	2244049	1	5
*	-104	2180752	1	
*	-105	2180761	2	
*	-106	2180762	1	A
*	-106	2180868	1	B
*	-107	257971	1	
*	-108	609687	2	
*	-109	725558	1	
*	-110	2180487	1	
*	-111	2180497	1	A
*	-111	5102917	1	48
*	-111	2181236	1	58
*	-112	2180799	1	1
*	-113	2180835	2	
*	-114	2180916	3	
*	-115	2180917	3	
*	-123	2180923	2	
*	-124	2180924	1	
*	-125	2180928	1	7
*	-125	4100328	1	8
*	-126	2180930	1	4
*	-126	2181270	1	6
*	-126	2181276	1	8
PARTS OF THIS ASM ARE NOT REPLACEABLE INDEXES 127 THRU 133 DELETED				
*	-134	2180986	1	
*	-135	2180988	1	4A
*	-135	2181296	1	5A
*	-135	2180864	1	4B
*	-135	2181295	1	5B
*	-135A	5528	3	5
*	-135B	129654	1	5
*	-135C	2181283	1	5
*	-135D	2181286	1	5A
*	-135D	2181285	1	5B
*	-136	2180989	1	4
*	-137	2180990	1	4
*	-137A	2181038	1	2
*	-137B	2181040	1	2
*	-137C	2181042	1	2
*	-137D	2181052	1	2
*	-137E	2181053	1	2
*	-137F	2181054	1	2
*	-138	2181067	1	1
*	-138	2181213	1	3
*	-138	2181240	1	5
*	-139	2181233	1	5
*	-140	2244042	3	5
*	-141	2244043	3	5
*	-142	2244046	1	5
*	-143	2244205	1	8
*	-144	NO NO.	1	1

**FOR PARTS  
NOT SHOWN  
SEE FIG. 5**

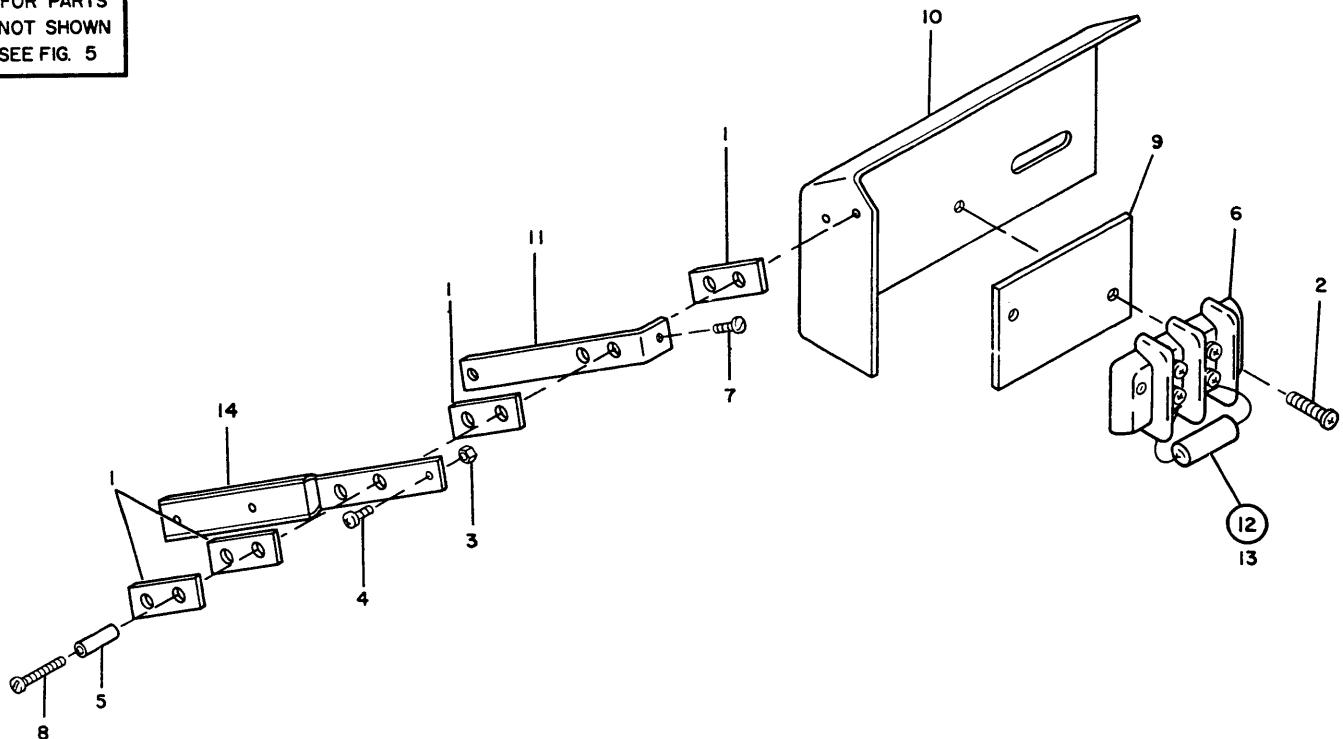


FIGURE 5A. PACK-IN-PLACE SWITCH ASSEMBLY. SEE LIST 5A.

LIST AND INDEX NO.	PART NO.	1 2 3 4	DESCRIPTION	UNITS PER ASM.	USABLE ON CODE
				REF	
			PACK-IN-PLACE SWITCH ASSEMBLY		
5A-	2162669		<p>SWITCH ASM, PACK-IN-PLACE            USED ON MACHINES PRIOR TO D5 SUFFIX            SEE LIST 5- 55 FOR NEXT HIGHER ASM.            AND FIGURE 5A FOR ILLUSTRATION</p> <ul style="list-style-type: none"> <li>• INSULATOR-STOP KEY CONT SPRING SUPPORT</li> <li>• SCREW,MACH-BIND HD 6-32 X 15/16 LG</li> <li>• NUT, HEX 4-40 NC</li> <li>• SCREW,ASSEM WASH-FIL H 4-40 X 1/4 LG</li> <li>• INSULATOR-SCR 0.128 ID 0.186 OD 0.520 LG</li> <li>• TERMINAL BOARD- 2 DBL SCREW TERMINALS</li> <li>• SCREW,MACH-BIND HD 4-40 X 3/16 LG</li> <li>• SCREW,MACH-BIND HD 4-40 X 5/8 LG</li> <li>• INSULATOR,PLATE-TERMINAL STRIP</li> <li>• BRACKET, SWITCH MOUNTING</li> <li>• TERMINAL ASSEMBLY, COMMON</li> <li>• DIODE ASM, SILICON, TYPE AM</li> <li>• SEMICONDUCTOR DEVICE-DIODE</li> <li>• CONTACT ASSEMBLY,SPRING</li> </ul>	4	
- 1	1974			2	
- 2	35739			1	
- 3	37913			1	
- 4	170150			1	
- 5	186842			2	
- 6	323840			1	
- 7	438548			1	
- 8	438551			2	
- 9	512426			1	
- 10	2160865			1	
- 11	2160901			1	
- 12	2160917			1	
- 13	2111232			1	
- 14	2162600			1	

FOR PARTS  
NOT SHOWN  
SEE FIG. 5

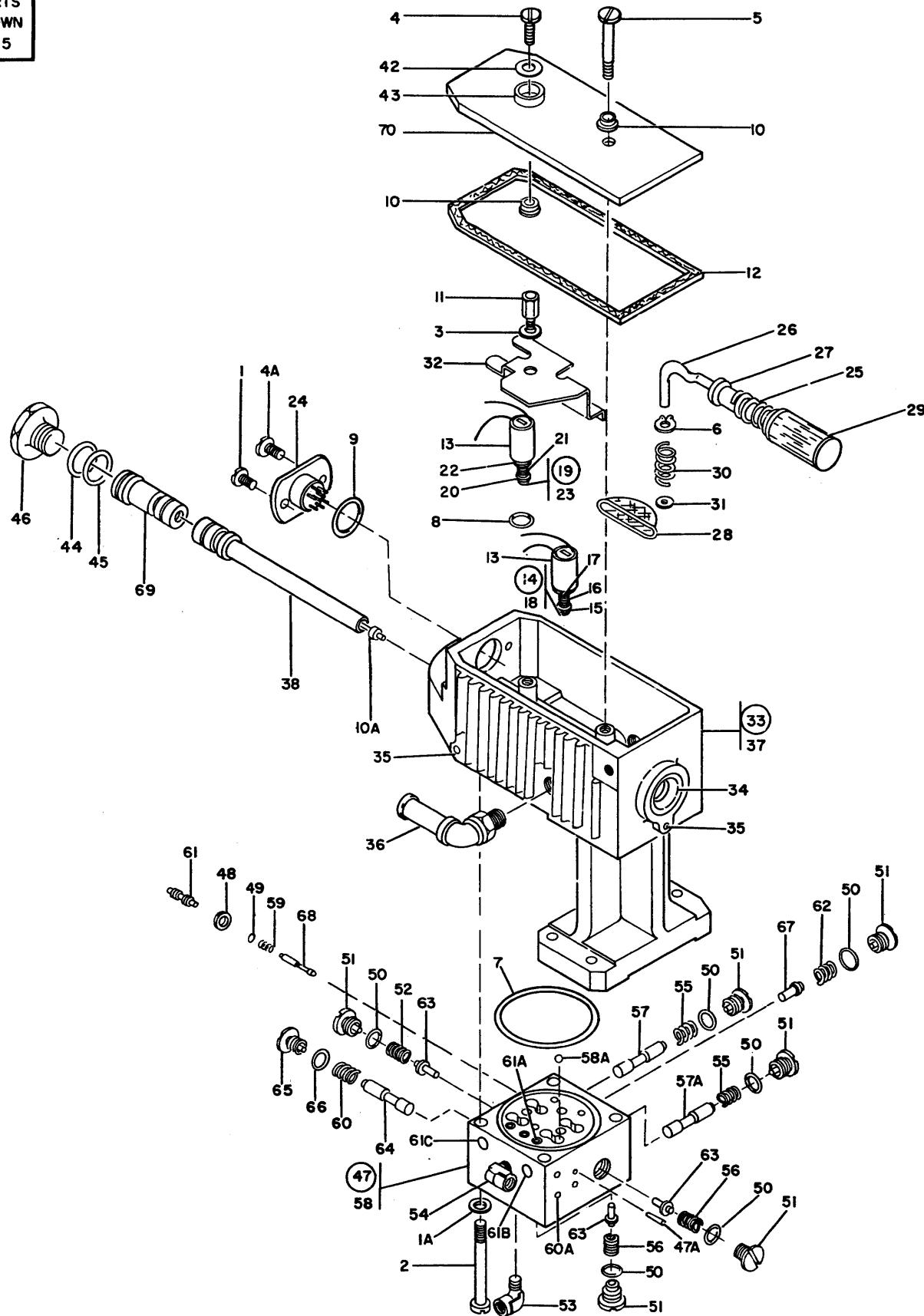


FIGURE 6. HYDRAULIC ACTUATOR ASSEMBLY. SEE LIST 6.

LIST AND INDEX NO.	PART NO.	1 2 3 4	DESCRIPTION	UNITS PER ASM.	USABLE ON CODE
			HYDRAULIC ACTUATOR ASSEMBLY		
6 -			CODE 1 USED ON ASM PRIOR TO E5 SUFFIX CODE 2 USED ON ASM FROM E5 TO H5 SUFFIX CODE 3 USED ON ASM FROM E5 TO E6 SUFFIX CODE 4 USED ON ASM FROM E5 TO CURRENT CODE 5 USED ON ASM PRIOR TO H5 SUFFIX CODE 6 USED ON ASM FROM H5 TO CURRENT CODE 7 USED ON ASM FROM E6 TO CURRENT		
-	2180410		ACTUATOR ASSEMBLY, HYDRAULIC USED ON MACHINES PRIOR TO E6 SUFFIX SEE LIST 5- 78 FOR NEXT HIGHER ASM. AND FIGURE 6 FOR ILLUSTRATION	REF	
-	2181274		ACTUATOR ASSEMBLY-HYDRAULIC USED ON MACHINES FROM E6 TO CURRENT SEE LIST 5- 78 FOR NEXT HIGHER ASM. AND FIGURE 6 FOR ILLUSTRATION	REF	
- 1	81693		SCREW, MACH-BIND HD NO 6-32 X 3/8 LG	1	
- 1A	9092		WASHER-LOCK,SPLIT RING, .194 ID .337OD	4	2
- 1A	45690		WASHER, FL - NO.10 X 7/16 OD X 1/32 THK	4	6
- 2	322562		SCREW,BINDING HEAD 10-32 X 2 IN LONG	4	1
- 2	186934		SCREW,CAP-HEX SOCKET,10-32 X 2.00 IN. LG	4	4
- 3	257986		WASHER,FL- NO. 6 X 0.312 OD	1	
- 4	322065		SCREW,MACH-BIND HD 6-32 X 5/8 LG	1	
- 4A	322550		SCREW, MACH-BIND HD NO. 6-32 X 1/2 LG	1	
- 5	438568		SCREW,MACHINE BINDING HEAD	1	
- 6	1115633		RING, RETAINING	1	
- 7	2121754		O RING, 2.309 OD	1	
- 8	2154120		O-RING, 0.301 ID	1	
- 9	2154132		O-RING, 0.750 ID	1	
- 10	2154138		DYNA-SEAL, SUMP COVER	2	
- 10A	2154140		BALL CLAMP, CARRIAGE COUPLER	1	
- 11	2154143		SCREW, SUMP DEFLECTOR MOUNTING	1	
- 12	2154145		GASKET, HYDRAULIC ACTUATOR SUMP COVER	1	
- 13	2154153		SOLENOID ASSEMBLY	5	
- 14	2157356		PLUNGER ASSEMBLY, FWD, SLOW, DETENT SOL	4	
- 14	2181076		PLUNGER ASM. FWD S/O DETENT SOLENOID	1	2
- 14	2181173		PLUNGER ASSEMBLY-SOLENOID	1	6
- 15	1073418		• RING,RET- 0.094 ID X 0.230 OD	1	
- 16	2154148		• SPRING, COMPRESSION, 0.838 LG X 0.160DIA USED ON ASM 2157376 ONLY	1	
- 16	2181075		• SPRING USED ON ASM 2181076 ONLY	1	
- 16	2181171		• SPRING-COMPRESSION,SOLENOID PLUNGER USED ON ASM 2181173 ONLY	1	
- 17	2154149		• WASHER, SOLENOID SPRING	1	
- 18	2154150		• PLUNGER, FORWARD, SLOW, DETENT SOLENOID USED ON ASM 2157376 AND 2181076 ONLY	1	
- 18	2181172		• PLUNGER-SOLENOID USED ON ASM 2181173 ONLY	1	
- 19	2157361		PLUNGER ASSEMBLY, EXTEND SOLENOID	1	5
- 19	2181216		PLUNGER ASSEMBLY-EXTENDER SOLENOID	1	6
- 20	1073418		• RING,RET- 0.094 ID X 0.230 OD	1	
- 21	2154147		• SPRING, COMPRESSION, 0.350 LG X 0.170DIA USED ON ASM 2157361 ONLY	1	3
- 21	2181217		• PLUNGER ASSEMBLY-EXTENDER SOLENOID USED ON ASM 2181216 ONLY	1	4
- 22	2154149		• WASHER, SOLENOID SPRING	1	
- 23	2154151		• PLUNGER, EXTEND SOLENOID	1	
- 24	2180414		BLOCK ASSEMBLY, SOLENOID TERMINAL	1	5
- 24	2154124		BLOCK ASSEMBLY, SOLENOID TERMINAL	1	
- 25	2180419		SPRING, COMPRESSION, .457 X .700 LONG	1	
- 26	2180424		TUBING, HYDRAULIC	1	
- 27	2180429		BUSHING, ALUMINUM, .363 X .87 LONG	1	
- 28	2180430		SCREEN, SUMP	1	
- 29	2180432		ELEMENT, HYDRAULIC OIL FILTER	1	
- 30	2180465		SPRING, COMPRESSION, .225 X 1.3 LONG	1	
- 31	2180468		VALVE, FILTER PRESSURE RELIEF	1	
- 32	2180763		DEFLECTOR, SUMP	1	
- 33	2180765		HOUSING ASSEMBLY, HYDRAULIC ACTUATOR	1	
- 34	2121517-		• SEAL, WIPER, .335 ID X .883 OD	1	
- 35	2180423		• BALL, .19685 SPHERICAL DIA.	4	
- 36	2180431		• CONNECTOR, TUBING, .250-18 X 1.81 LONG	1	
- 36	2154127		• CONNECTOR, SUCTION LINE SUMP	1	3
- 36	2181239		• FITTING,ELBOW- 90 DEGREE PIPE TO TUBE	1	7
- 37	2180764		• HOUSING, HYDRAULIC ACTUATOR	1	

LIST AND INDEX NO.	PART NO.	1 2 3 4	DESCRIPTION	UNITS PER ASM.	USABLE ON CODE
6 - 38	218C768		HYDRAULIC ACTUATOR ASSEMBLY -CONT		
			• ROD ASSEMBLY, CARRIAGE DRIVE PARTS OF THIS ASM ARE NOT REPLACEABLE INDEXES 39 THRU 41 DELETED	1	
- 42	218C769		• WASHER, SUMP RELIEF	1	
- 43	218C771		• BREATHER, SUMP RELIEF	1	
- 44	218C772		• O RING, RUBBER, .644 ID	1	
- 45	218C773		• PACKING, U-CUP	1	
- 46	218C774		• CAP, REAR	1	
- 47	2180776		• BLOCK AND PLUG ASSEMBLY, ACTUATOR	1	
- 47	2181185		• MANIFOLD ASM-HYDRAULIC ACTUATOR	1	5
- 47A	4327		• • PIN, TAPER NO. 5-0 X .562 LG	1	6
- 48	257187		• • NUT, HEX DOUBLE CHAMFERED 6-36 X 5/16	1	
- 49	357419		• • O-RING	1	
- 50	2154120		• • O-RING, .301 ID	1	
- 51	2154121		• • STOP, VALVE SPOOL, LOWER	6	
- 52	2154130		• • SPRING, COMPRESSION, 0.913 LG X 0.210DIA	1	
- 53	2154133		• • ELBOW, BRASS, 0.438-24 X 0.55 OD	1	
- 54	2154134		• • ELBOW, BRASS, 0.375-24 X 0.50 OD	1	
- 55	2154136		• • SPRING, COMPRESSION, 0.710 LG X 0.218DIA USED ON ASM 2180776 ONLY	2	
- 55	2181182		• • SPRING-FORWARD USED ON ASM 2181185 ONLY	2	
- 56	2154141		• • SPRING, COMPRESSION, 0.934 LG X 0.210DIA USED ON ASM 2180776 ONLY	2	
- 56	2154130		• • SPRING, COMPRESSION, 0.913 LG X 0.210DIA USED ON ASM 2180776 ONLY	2	
- 57	2154146		• • SPOOL, SLOW, FORWARD VALVE USED ON ASM 2180776 ONLY	1	
- 57	2181177		• • SPOOL, INTERMEDIATE SPEED USED ON ASM 2181185 ONLY	1	
- 57A	2154146		• • SPOOL, SLOW, FORWARD VALVE USED ON ASM 2180776 ONLY	1	1
- 57A	2181074		• • SPOOL, VALVE-FWD REV USED ON ASM 2180776 ONLY	1	4
- 57A	2181178		• • SPOOL, VALVE-FWD REV USED ON ASM 2181185 ONLY	1	
- 58	2180413		• • BLOCK, VALVE	1	
- 58A	2180416		• • BALL-CHECK	1	
- 59	2180417		• • SPRING, COMPRESSION, .097 X .450 LONG USED ON ASM 2180776 ONLY	1	
- 59	2181184		• • SPRING-SPOOL USED ON ASM 2181185 ONLY	1	
- 60	2180421		• • SPRING, COMPRESSION, .178 X 1.00 LONG	1	
- 60A	2180423		• • BALL, .19685 SPHERICAL DIA.	6	
- 61	2180425		• • SCREW, ADJUSTING	1	
- 61A	2180426		• • INSERT-VALVE	4	
- 61B	2180427		• • SPOOL-VALVE USED ON ASM 2180776 ONLY	1	
- 61B	2181175		• • STOP, VALVE-FORWARD USED ON ASM 2181185 ONLY	1	
- 61C	2180427		• • SPOOL-VALVE USED ON ASM 2180776 ONLY	1	
- 61C	2181174		• • STOP, VALVE-INTRMOTIVE USED ON ASM 2181185 ONLY	1	
- 62	2180467		• • SPRING, COMPRESSION, .225 X 1.06 LONG USED ON ASM 2180776 ONLY	1	
- 62	2181183		• • SPRING-VALVE USED ON ASM 2181185 ONLY	1	
- 63	2180760		• • VALVE, CHECK	3	
- 64	2180785		• • VALVE, DUMP SPOOL USED ON ASM 2180776 ONLY	1	
- 64	2181181		• • VALVE ASSEMBLY-DUMP USED ON ASM 2181185 ONLY	1	
- 65	2180786		• • STOP, DUMP VALVE SCREW	1	
- 66	2180793		• • SEAL, RUBBER, .280 ID, .52 OD	1	
- 67	2180925		• • VALVE, PRESSURE RELIEF USED ON ASM 2180776 ONLY	1	
- 67	2180760		• • VALVE-CHECK USED ON ASM 2181185 ONLY	1	
- 68	2180932		• • SPOOL, ORIFICE SIZE-.0102 AND .0210	1	
- 69	2180777		• • PISTON, HOME AND EXTENDED	1	
- 70	2180778		• • COVER, HYDRAULIC ACTUATOR	1	

FOR PARTS  
NOT SHOWN  
SEE FIG. 5

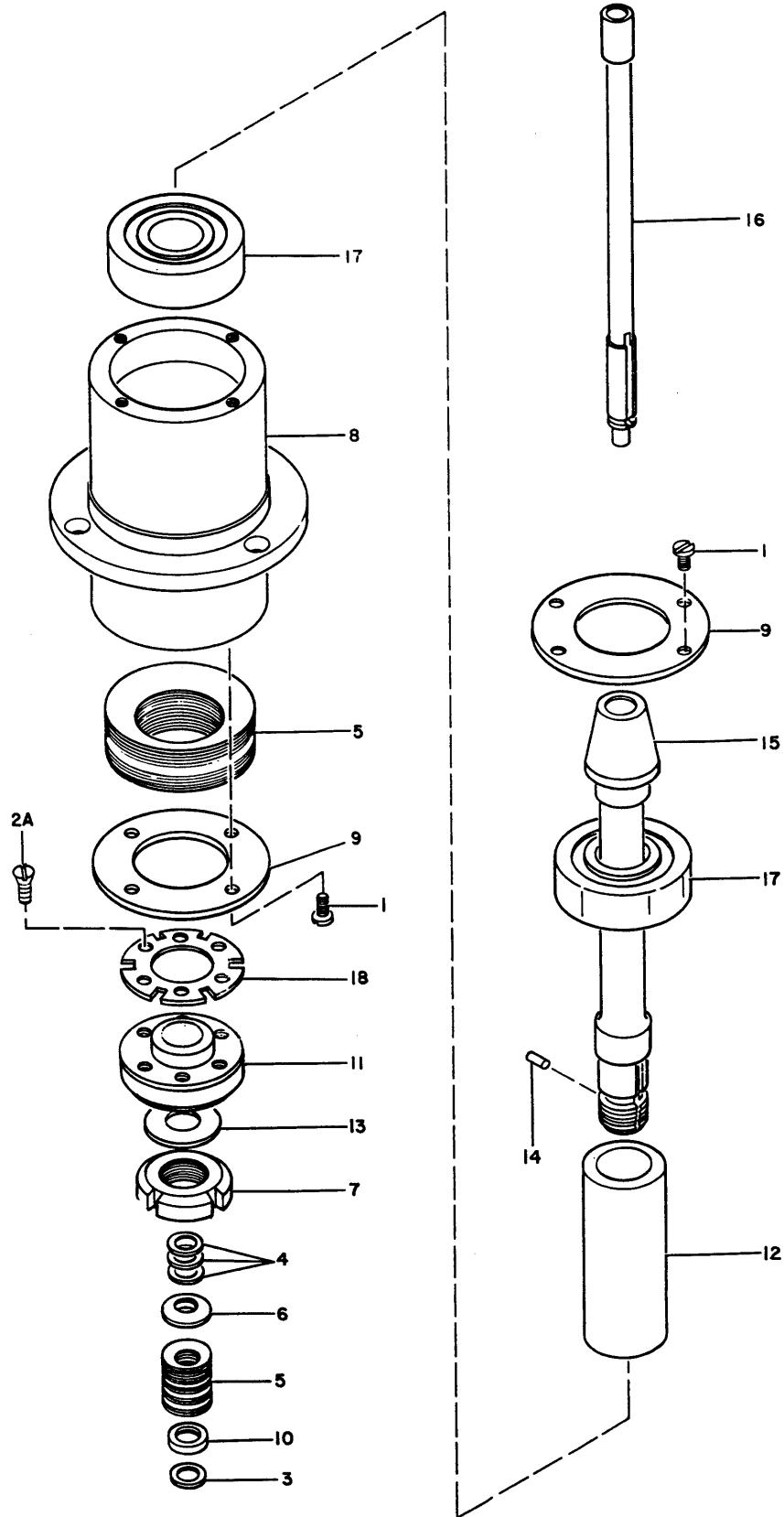


FIGURE 7. DISK PACK SPINDLE ASSEMBLY. SEE LIST 7.

LIST AND INDEX NO.	PART NO.	1 2 3 4	DESCRIPTION	UNITS PER ASM.	USABLE ON CODE
			DISK PACK SPINDLE ASSEMBLY		
* 7 -			CODE A USED ON MACH. PRIOR TO D5 SUFFIX CODE B USED ON MACH. FROM D5 TO E6 CODE C USED ON MACH. FROM E6 TO CURRENT		
- -	2180420		SPINDLE ASM, DISK PACK SEE LIST 5- 79 FOR NEXT HIGHER ASM. AND FIGURE 7 FOR ILLUSTRATION	REF	A
-	2181062		SPINDLE ASM, DISK PACK SEE LIST 5- 79 FOR NEXT HIGHER ASM. AND FIGURE 7 FOR ILLUSTRATION	REF	B
-	2218674		SPINDLE ASSEMBLY SEE LIST 5- 79 FOR NEXT HIGHER ASM. AND FIGURE 7 FOR ILLUSTRATION	REF	C
- 1	34512		• SCREW, MACH-BIND. HD 8-32 X 3/8 LG INDEX 2 DELETED	8	
- 2A	316807		• SCREW, MACH FL HD 6-32 X 3/8 LG	6	B
- 2A	2181010		• SCREW, FLATHEAD UNDERCUT, 6-32 X .437	6	C
- 3	2154355		• RING, RETAINING	1	
- 4	2154419		• SHIM, DISK PACK SPINDLE	9	
- 5	2154423		• SPRING, DISK SPINDLE BEARING	6	
- 6	2154424		• SPRING, DISK PACK LOCKING SHAFT	10	
- 7	2154426		• LOCKNUT, DISK PACK SPINDLE	1	
- 8	2154429		• HOUSING, DISK PACK SPINDLE	1	
- 9	2154430		• PLATE, SPINDLE BEARING	1	
- 10	2154469		• RETAINER, STEEL, 3/4 OD X 1/2 ID	2	
- 11	2180408		• PULLEY, DISK PACK	1	
- 11	2181056		• PULLEY, DISK PACK	1	A
- 11	2218673		• CORR. OUTLET- 50 CY REAR QUAD DR. FEAT.	1	B
- 12	2180548		• SPACER, BEARING, 1.50 OD X 3.755 LONG	1	C
- 13	2180779		• WASHER, FIBER, 1.175 ID X 1.80 OD	1	
- 14	2180787		• PIN, SPINDLE DRIVE	1	
- 15	2180789		• SPINDLE, DISK PACK	1	
- 16	2180792		• LOCKING SHAFT ASSEMLBY	1	A
- 16	2181058		• SHAFT ASSEMBLY, LOCKING	1	B
- 16	2181058		• SHAFT ASSEMBLY, LOCKING	1	C
- 17	2180798		• BEARING, BALL, 1.18 ID, 2.44 OD	2	
- 18	2181041		• WHEEL, LOCK	1	B
- 18	2181041		• WHEEL, LOCK	1	C

FOR PARTS  
NOT SHOWN  
SEE FIG. 5

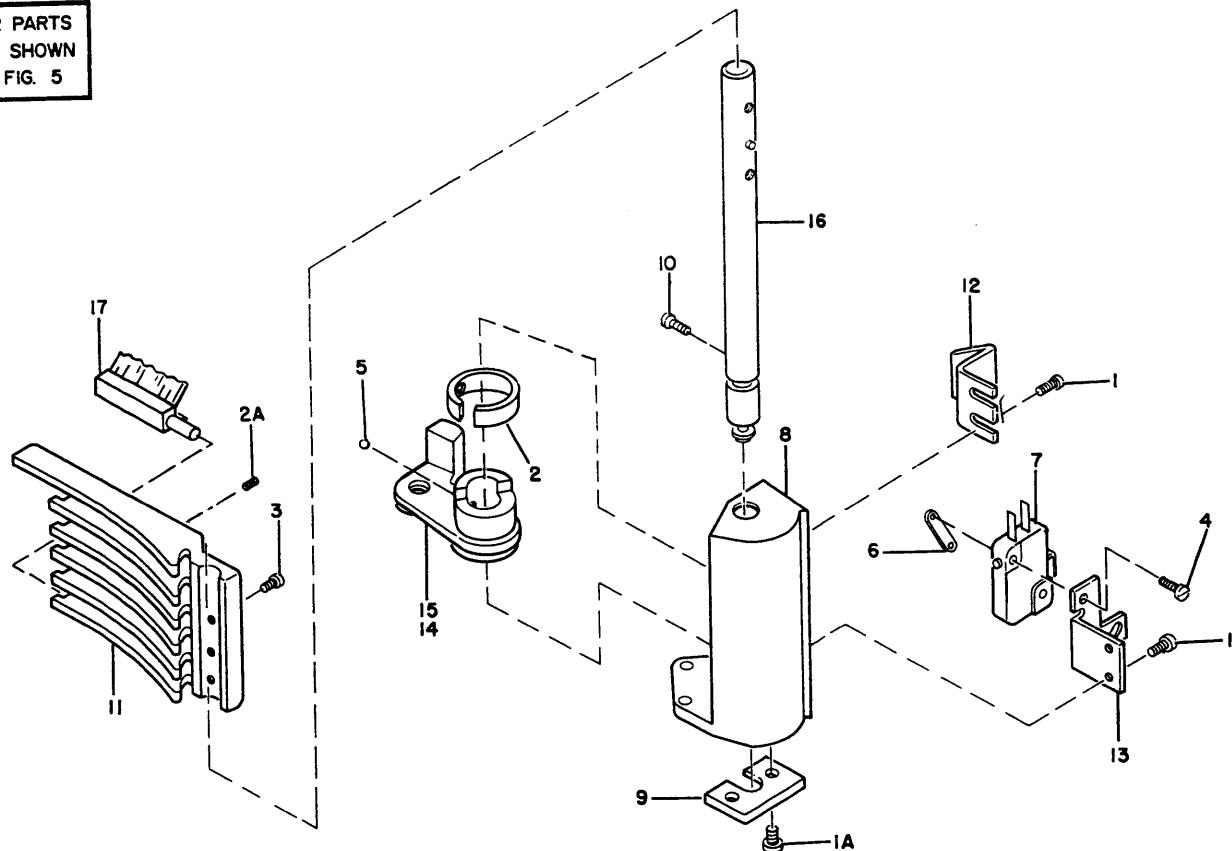
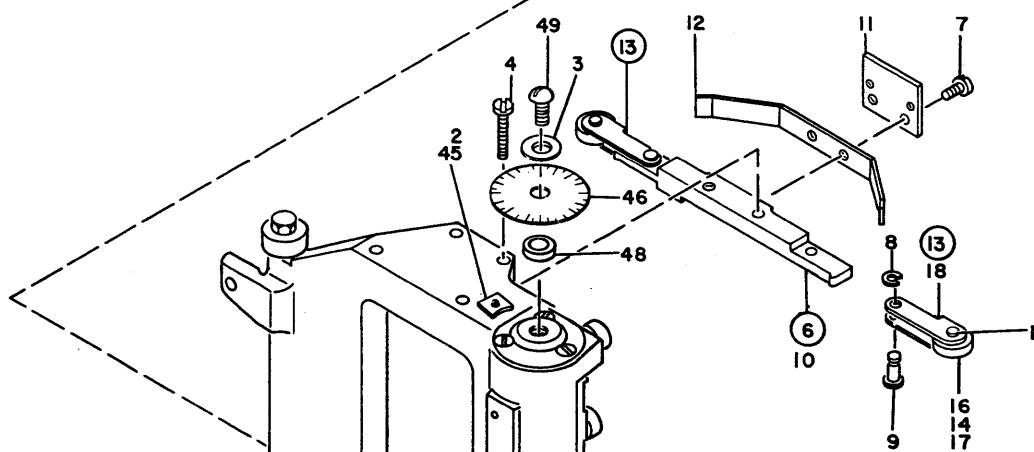
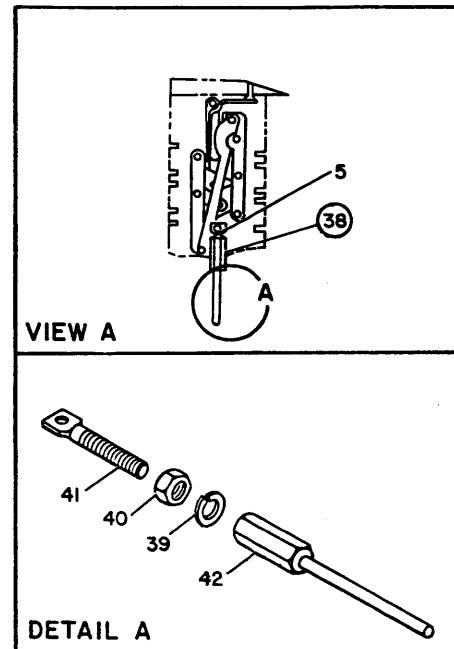
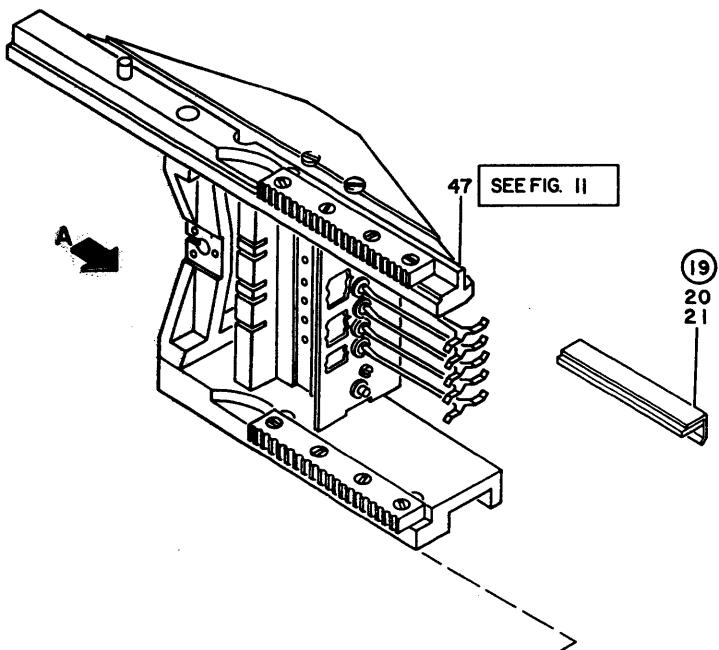


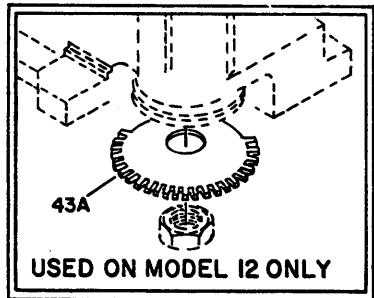
FIGURE 8. BRUSH PIVOT ASSEMBLY. SEE LIST 8.

LIST AND INDEX NO.	PART NO.	DESCRIPTION	UNITS PER ASM.	USABLE ON CODE
		1 2 3 4		
BRUSH PIVOT ASSEMBLY				
8 -		- CODE 1 USED ON ASM PRIOR TO P5 SUFFIX CODE 2 USED ON ASM FROM P5 TO CURRENT CODE 3 USED ON ASM PRIOR TO P6 SUFFIX CODE 4 USED ON ASM FROM P6 TO CURRENT -		
-	2180480	PIVOT ASSEMBLY, BRUSH SEE LIST 5- 88 FOR NEXT HIGHER ASM. AND FIGURE 8 FOR ILLUSTRATION	REF	
- 1	10170	• SCREW-MACH,BIND HD NO. 6-32 X .250 LG	6	1
- 1	10170	• SCREW-MACH,BIND HD NO. 6-32 X .250 LG	4	2
- 1A	81693	• SCREW,MACH-BIND HD 6-32 X 3/8 LG	2	2
- 2	237245	• CLIP-RET	1	
- 2A	257958	• SETSCREW-SPLINE DR FP 4-40 X 3/16 LG SEE LIST 1- 18 FOR NEXT HIGHER ASM.	REF	
- 3	322065	• SCREW,MACH-BIND HD 6-32 X 5/8 LG	2	
- 4	438551	• SCREW,MACH-BIND HD 4-40 X 5/8 LG	2	
- 5	1124682	• BALL, COMPENSATOR, S ST, 0.18750 DIA	1	
- 6	2157349	• PLATE, SECTOR PULSE SWITCH	1	3
- 6	2244026	• PLATE,NUT,SECTOR SWITCH	1	4
- 7	2162551	• SWITCH, SECTOR BLOCK	1	
- 8	2180479	• SUPPORT, BRUSH PIVOT SHAFT	1	
- 9	2180484	• RETAINER, BRUSH PIVOT SHAFT	1	
- 10	2180898	• SCREW, BRUSH ARM STOP	1	
- 11	2180903	• HOLDER, BRUSH	1	
- 12	2180904	• BRACKET, BRUSH HOLDER STOP	1	
- 13	2180905	• BRACKET, SWITCH	1	
- 14	2180906	• ARM, BRUSH PIVOT	1	
- 15	2180907	• SPRING, DETENT	1	
- 16	2180909	• SHAFT ASSEMBLY, BRUSH PIVOT	1	
- 17	2180499	• BRUSH ASSEMBLY, DISK PACK SEE LIST 1- 45 FOR NEXT HIGHER ASM.	REF	

FOR PARTS  
NOT SHOWN  
SEE FIG. 9



SEE FIG. 10 44



USED ON MODEL 12 ONLY

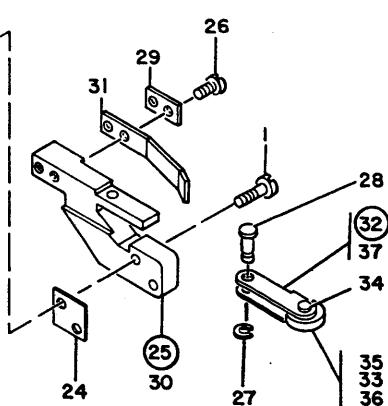


FIGURE 9. CARRIAGE AND CARRIAGE HOUSING ASSEMBLY. SEE LIST 9.

LIST AND INDEX NO.	PART NO.	1 2 3 4	DESCRIPTION	UNITS PER ASM.	USABLE ON CODE
			CARRIAGE AND CARRIAGE HOUSING ASSEMBLY.		
* 9 -			CODE A USED ON MODELS 1 AND 11 CODE B USED ON MODEL 12 CODE '1 USED ON ASM PRIOR TO B6 SUFFIX		
* * *			CODE 2 USED ON ASM FROM B6 TO CURRENT CODE 3 USED ON ASM PRIOR TO B7 SUFFIX CODE 4 USED ON ASM FROM B7 TO CURRENT		
* -	2180520		CARRIAGE AND CARRIAGE HOUSING ASSEMBLY SEE LIST 5- 92 FOR NEXT HIGHER ASM. AND FIGURE 9 FOR ILLUSTRATION	REF	
- 1	5528		• SCREW,MACH-BIND. HD 8-32 X 5/8 LG	2	
- 2	38235		• SCREW,MACH-FIL H 6-32 X 5/16 LG	1	
- 3	120789		• WASHER,FL-NO. 10 X 3/4 OD X 0.046 THK	1	
- 3	3550		• WASHER,FL- 1/4 X 9/16 OD X 0.050 THK	1	
- 4	322065		• SCREW,MACH-BIND HD 6-32 X 5/8 LG	2	
- 5	1073418		• RING,RET- 0.094 ID X 0.230 OD	1	
- 6	2154304		• ROLLER ASSEMBLY, CARRIAGE UPPER	1	
- 7	35739		• • SCREW, MACH-BIND HD NO. 6-32 X 15/16 LG	2	
- 8	1073418		• • RING,RET- 0.094 ID X 0.230 OD	2	
- 9	2154339		• • PIVOT, ROLLER YOKE	2	
- 10	2154342		• • ARM, UPPER RAIL ROLLER	1	
- 11	2157330		• • PLATE, ROLLER YOKE	1	
- 12	2160894		• • SPRING, UPPER ROLLER YOKE	2	
- 13	2160893		• • YOKE ASSEMBLY, CARRIAGE RAIL ROLLER	1	
- 14	233355		• • BEARING,BALL,PLAIN 3/16 ID X 1/2 OD	2	
- 15	2154337		• • PIN, CARRIAGE RAIL ROLLER	2	
- 16	2154338		• • SHIM, CARRIAGE RAIL ROLLER	2	
- 17	2157327		• • ROLLER, SPRING CONTACT	2	
- 18	2160918		• • YOKE, CARRIAGE RAIL ROLLER	2	
- 19	2157302		• RETAINER ASSEMBLY, RACK LUBRICATOR	2	
- 20	2157303		• • FELT, RACK LUBRICATOR	1	
- 21	2157304		• • RETAINER, RACK LUBRICATOR	1	
- 22	2157343		• SPACER, TRACK POSITION DISK	1	
- 23	2157344		• LOCKNUT, TRACK POSITION DISK	1	
- 24	2160764		• SHIM, LOWER ROLLER	2	
- 25	2160890		• ROLLER ASSEMBLY, CARRIAGE LOWER	1	
- 26	35739		• • SCREW, MACH-BIND HD NO. 6-32 X 15/16 LG	2	
- 27	1073418		• • RING,RET- 0.094 ID X 0.230 OD	1	
- 28	2154339		• • PIVOT, ROLLER YOKE	1	
- 29	2154344		• • CAP, ROLLER SPRING	1	
- 30	2160891		• • ARM, LOWER RAIL ROLLER	1	
- 31	2160892		• • SPRING, LOWER ROLLER YOKE	1	
- 32	2160893		• • YOKE ASSEMBLY, CARRIAGE RAIL ROLLER	1	
- 33	233355		• • BEARING,BALL,PLAIN 3/16 ID X 1/2 OD	1	
- 34	2154337		• • PIN, CARRIAGE RAIL ROLLER	1	
- 35	2154338		• • SHIM, CARRIAGE RAIL ROLLER	2	
- 36	2157327		• • ROLLER, SPRING CONTACT	1	
- 37	2160918		• • YOKE, CARRIAGE RAIL ROLLER	2	
- 38	2162747		• ROD ASSEMBLY,ADJ HEAD LOAD LATCH PUSH	1	3
- 38	2181347		• ROD ASSEMBLY,ADJ HEAD LOAD LATCH PUSH	1	4
- 39	6364		• • WASHER,LOCK-SPLIT NO. 6 X 1/4 OD USED ON ASM 2162747 ONLY	1	3
- 40	38051		• • NUT,PLAIN,HEX- 6-32 X 1/4 FL W	1	
- 41	2162748		• • SCREW, 6-32 ADJUSTING	1	
- 42	2162749		• • NUT,ROD ADJUSTABLE USED ON ASM 2162747 ONLY	1	3
- 42	2218636		• • NUT,ROD ADJUSTABLE USED ON ASM 2181347 ONLY	1	4
- 43	2180464		• DISK, TRACK POSITION	1	
- 43A	2181257		• DISK,TRACK POSITION-MOD 12	1	A
- 44	2180501		• HOUSING ASSEMBLY, CARRIAGE SEE LIST 10 FOR DETAIL BREAKDOWN	1	B
- 45	2180503		• PLATE, TRACK INDICATOR	1	
- 46	2180505		• COUNTER, TRACK	1	
- 47	2180510		• CARRIAGE ASSEMBLY, 10 HEAD SEE LIST 11 FOR DETAIL BREAKDOWN	1	
- 48	2180528		• SPACER, STEEL, .1910D X .5000D X .105 TH	1	
- 49	2180701		• SCREW, BUTTON HEAD, 10/32 X 1/2 LONG	1	

FOR PARTS  
NOT SHOWN  
SEE FIG. 9

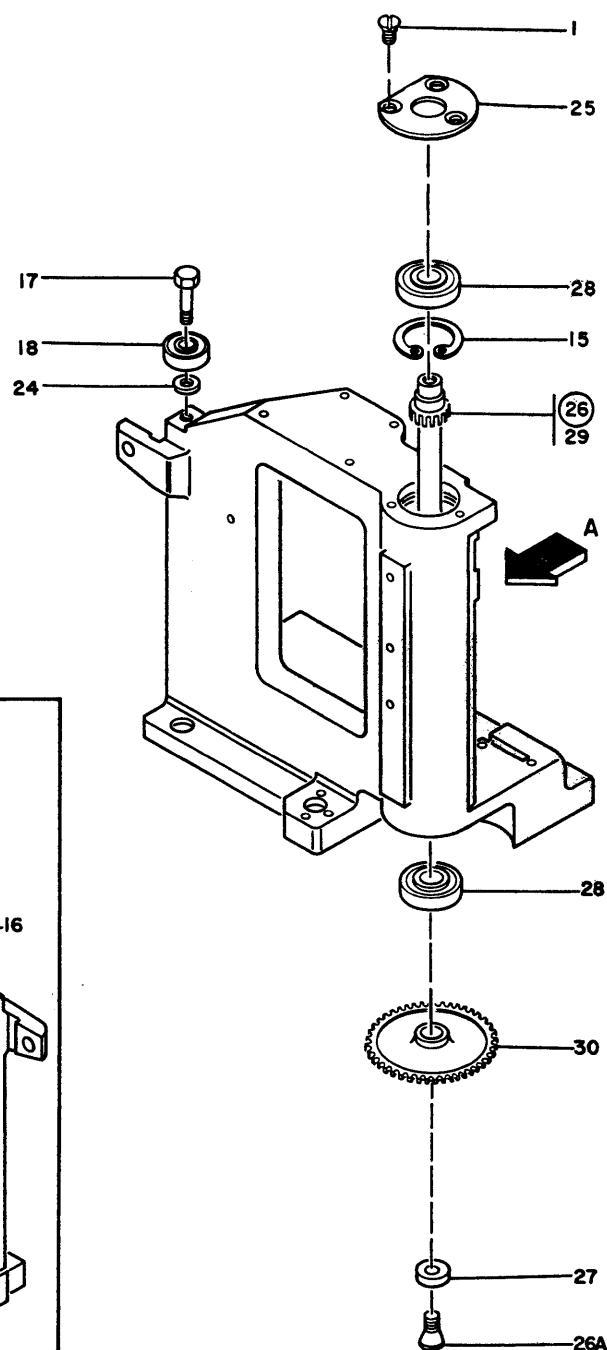
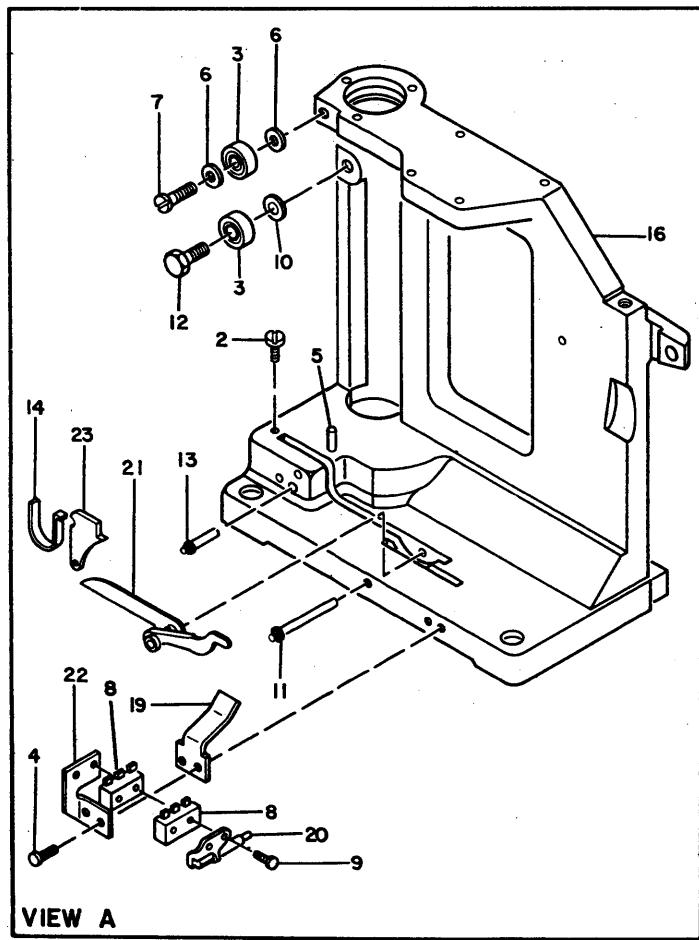


FIGURE 10. CARRIAGE HOUSING ASSEMBLY. SEE LIST 10.

LIST AND INDEX NO.	PART NO.	1 2 3 4	DESCRIPTION	UNITS PER ASM.	USABLE ON CODE
			CARRIAGE HOUSING ASSEMBLY.		
* 10 -			CODE 1 USED ON ASM PRIOR TO B7 SUFFIX CODE 2 USED ON ASM FROM B7 TO CURRENT		
*			-		
*			HOUSING ASSEMBLY, CARRIAGE		REF
*			SEE LIST 9- 44 FOR NEXT HIGHER ASM. AND FIGURE 10 FOR ILLUSTRATION		
*	2180501		.		
- 1	38442		SCREW,MACH-FL CSK HD 6-32 X 1/4 LG	3	
- 2	48594		SCREW, MACH-BIND HD NO. 4-40 X 0.175 LG	1	
- 3	233355		BEARING,BALL,PLAIN 3/16 ID X 1/2 OD	2	
- 4	251970		SCREW, MACH, BIND HD-NO. 4-40 X 1/4 LG	2	
- 5	255886		ROLL PIN	1	
- 6	257986		WASHER,FL- NO. 6 X 0.312 OD	2	
- 7	322550		SCREW, MACH-BIND HD NO. 6-32 X 1/2 LG	1	
- 8	355343		SWITCH, PRECISION	2	
- 9	438543		SCREW, MACH, BIND. HD 2-56 X 5/8 LG	2	
- 10	597044		COLLAR, MTG- GATE SUPPORT	1	
- 11	2154204		PIVOT, ARMATURE, PAWL, 1.66 LG	1	
- 12	2154301		STUD, CARRIAGE GUIDE ROLLER	1	
- 13	2154303		PIVOT, CAM LATCH	1	
- 14	2154306		SPRING, CAM LATCH	1	
- 15	2154307		RING, RETAINING	1	
- 16	2154326		HOUSING, CARRIAGE	1	
- 17	2154327		STUD, CARRIAGE GUIDE ROLLER	1	
- 18	2154328		BEARING, CARRIAGE GUIDE ROLLER	1	
- 19	<u>2154329</u>		SPRING, HEAD LOAD CAM SWITCH	1	
- 20	<u>2154330</u>		ACTUATOR, HEAD LOAD SWITCH	2	
- 21	2154331		CAM, HEAD LOAD	1	1
- 21	2181324		CAM,HEAD LOAD	1	2
- 22	2154332		BRACKET, HEAD LOAD CAM CONTACT	1	
- 23	2154356		LATCH, HEAD LOAD CAM	1	
- 24	2160765		SPACER, 0.203 ID X 0.438 OD	1	
- 25	2180529		RETAINER, BEARING	1	
- 26	2180443		SHAFT ASSEMBLY, DETENT AND TRACT POS.	1	
- 26A	99		SCREW,MACH-FL CSK HD 10-32 X 3/8 LG	1	
- 27	2154348		WASHER, 1/2 OD X 1/4 ID	1	
- 28	2154349		BEARING, TRACK POSITION SHAFT	2	
- 29	2154352		SHAFT, DETENT AND TRACK POSITION	1	
- 30	2180444		GEAR, DETENT	1	

FOR PARTS  
NOT SHOWN  
SEE FIG. 9

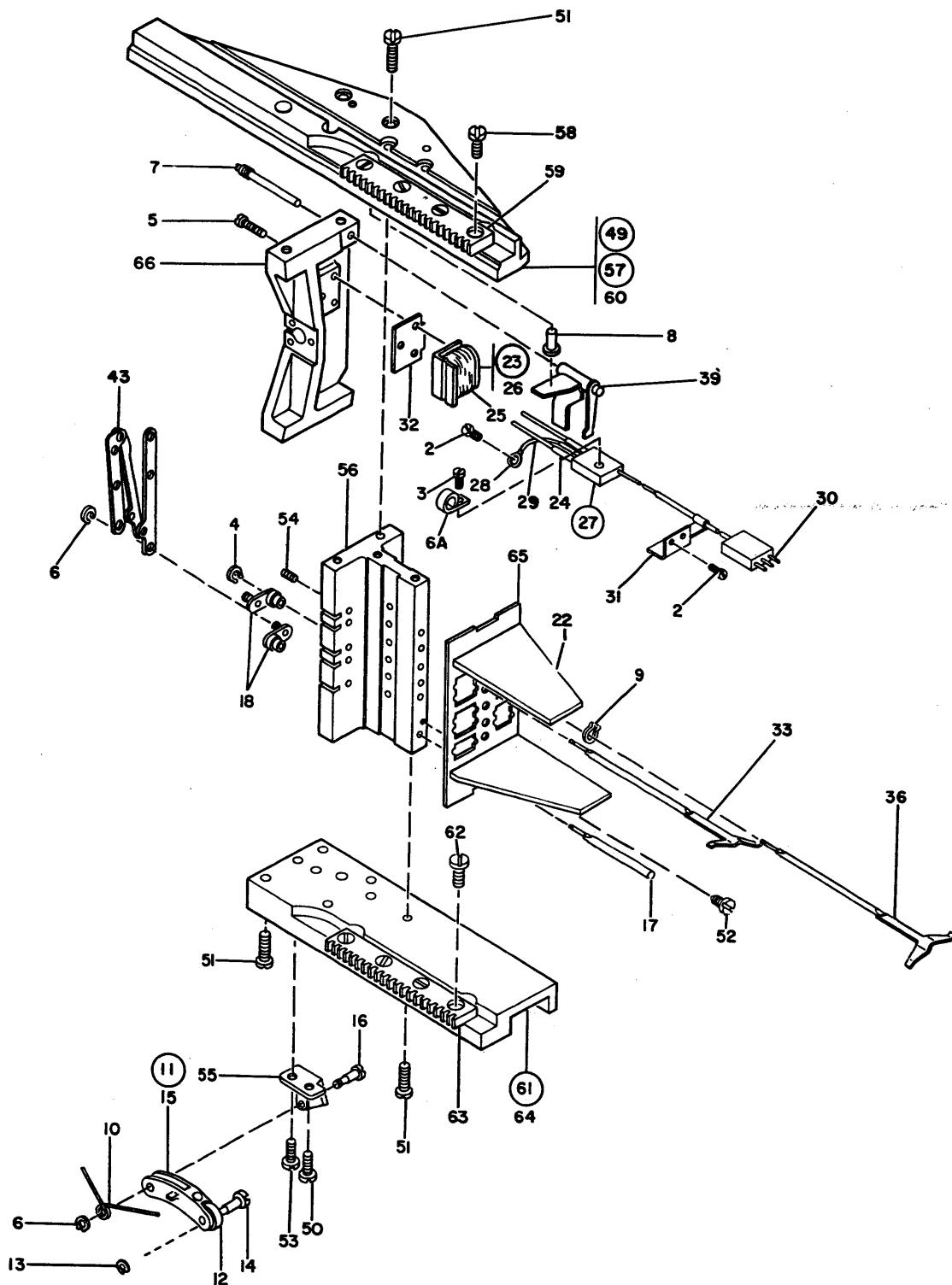


FIGURE 11.10 HEAD CARRIAGE ASSEMBLY. SEE LIST 11.

		10 HEAD CARTRIDGE ASSEMBLY.	
* 11 -		CODE 1 USED ON ASM FROM E5 TO CURRENT CODE 2 USED ON ASM PRIOR TO H5 SUFFIX CODE 3 USED ON ASM FROM H5 TO CURRENT CODE 4 USED ON ASM PRIOR TO A6 SUFFIX CODE 5 USED ON ASM FROM A6 TO CURRENT CODE 6 USED ON ASM PRIOR TO B7 SUFFIX CODE 7 USED ON ASM FROM B7 TO CURRENT	
-	2180510	CARRIAGE ASSEMBLY, 10 HEAD SEE LIST 9- 47 FOR NEXT HIGHER ASM. AND FIGURE 11 FOR ILLUSTRATION	REF
- 1	10170	. SCREW, MACH-BIND HD 6-32 X 1/4 LG	4
- 2	48594	. SCREW, MACH-BIND HD NO. 4-40 X 0.175 LG	3
- 3	251970	. SCREW-MACH BD. HD. 4-40 X 1/4 LG	1 4
- 3	438548	. SCREW, MACH-BIND HD 4-40 X 3/16 LG	1 5
- 3	438548	. SCREW, MACH-BIND HD 4-40 X 3/16 LG	1 2
- 4	251989	. RING, RETAINING	6
- 5	438549	. SCREW, MACH-BIND HD 4-40 X 7/16 LG	3
- 6	1073418	. RING, RET- 0.094 ID X 0.230 OD	7
- 6A	2122639	. CLAMP-CABLE	1 1
- 7	2154204	. PIVOT, ARMATURE, PAWL, 1.66 LG	1
- 8	2154207	. PLUNGER, HEAD LOAD	1
- 9	2154208	. RING, RETAINING, HEAD LOAD BAR	12
- 10	2154212	. SPRING, TORSION	1
- 11	2154255	. FOLLOWER ASSEMBLY, HEAD LOAD CAM	1 6
- 11	2181329	. FOLLOWER ASSEMBLY, HEAD LOAD CAM	1 7
- 12	437131	. . ROLLER, TRAVERSE CARRIAGE SUPPORT	1 6
- 12	2181326	. . ROLLER, HEAD LOAD	1 7
- 13	1073418	. . RING, RET- 0.094 ID X 0.230 OD	1
- 14	2154203	. . PIN, HEAD LOAD CAM FOLLOWER ROLLER	1
- 15	2154256	. . FOLLOWER, HEAD LOAD CAM	1 6
- 15	2181325	. . FOLLOWER HEAD LOAD CAM	1 7
- 16	2154268	. . PIN, HEAD LOAD CAM FOLLOWER, 0.125 DIA	1
- 17	2154393	. . ROD, HEAD LOAD-DUMMY	1
- 18	2154659	. . LEVER ASSEMBLY, HEAD LOADING PARTS OF THIS ASM ARE NOT REPLACEABLE INDEXES 19 THRU 21 DELETED	6
- 22	2162532	. . PAD, HEAD LOAD	2
- 23	2180445	. . MAGNET ASSEMBLY, HEAD LOAD LATCH	1
- 24	441218	. . TUBING	2
- 25	620093	. . COIL ASSEMBLY, 646 OHM - 790 OHM RES.	1
- 26	2180446	. . CORE AND MOUNT ASSEMBLY	1
- 27	2162569	. . CABLE ASSEMBLY, HEAD LATCH SOLENOID	1 1
- 28	T24440	. . . CLIP	1
- 29	2103416	. . . TUBING, INSULATING	1
- 30	2154243	. . . CONTACT, SINGLE WIRE	3
- 31	2162539	. . . CLIP, HEAD LATCH SOLENOID CABLE	1
- 32	2180447	. . PLATE, MAGNET	1
- 33	2180451	. . ROD ASSEMBLY, TORSION, A-UP B-DOWN	2 2
- 33	2181194	. . ROD ASSEMBLY, TORSION, A-UP B-DOWN PARTS OF THIS ASM ARE NOT REPLACEABLE INDEXES 34 AND 35 DELETED	3 3
- 36	2180452	. . ROD ASSEMBLY, TORSION, A-DOWN B-UP	3 2
- 36	2181195	. . ROD ASSEMBLY, TORSION, A-DOWN B-UP PARTS OF THIS ASM ARE NOT REPLACEABLE INDEXES 37 AND 38 DELETED	3 3
- 39	2180455	. . PAWL ASSEMBLY, HEAD LOAD PARTS OF THIS ASM ARE NOT REPLACEABLE INDEXES 40 THRU 42 DELETED	1
- 43	2180462	. . LINK ASSEMBLY, HEAD LOAD LATCH PARTS OF THIS ASM ARE NOT REPLACEABLE INDEXES 44 THRU 48 DELETED	1
- 49	2180675	. . RECEIVER ASSEMBLY, CARRIAGE	1
- 50	81693	. . . SCREW, MACH-BIND HD NO 6-32 X 3/8 LG	1
- 51	186758	. . . SCREW, MACH-BIND HD 8-32 X 7/16 LG	12
- 52	186923	. . . SCREW, MACH SOCKET HD 4-40 X 0.250 LG	3
- 53	322065	. . . SCREW, MACH-BIND HD 6-32 X 5/8 LG	1
- 54	2154209	. . . SCREW, HEADLESS SET, NO. 8-32 X 3/8 LG	10
- 55	2154236	. . . MOUNT, HEAD LOAD CAM FOLLOWER	1
- 56	2154237	. . . RECEIVER, CARRIAGE ASSEMBLY	1
- 57	2154258	. . . RAIL ASSEMBLY, TOP	1
- 58	81693	. . . SCREW, MACH-BIND HD NO 6-32 X 3/8 LG	4
- 59	2154231	. . . RACK, CARRIAGE DRIVE GEAR	1
- 60	2154233	. . . RAIL, CARRIAGE TOP	1
- 61	2154259	. . . RAIL ASSEMBLY, BOTTOM	1
- 62	81693	. . . SCREW, MACH-BIND HD NO 6-32 X 3/8 LG	4
- 63	2154231	. . . RACK, CARRIAGE DRIVE GEAR	1
- 64	2154234	. . . RAIL, CARRIAGE BOTTOM	1
- 65	2162556	. . . COMB, ARM FRONT	1
- 66	2180502	. . . COUPLER, CARRIAGE DRIVE	1

FOR PARTS  
NOT SHOWN  
SEE FIG. 5

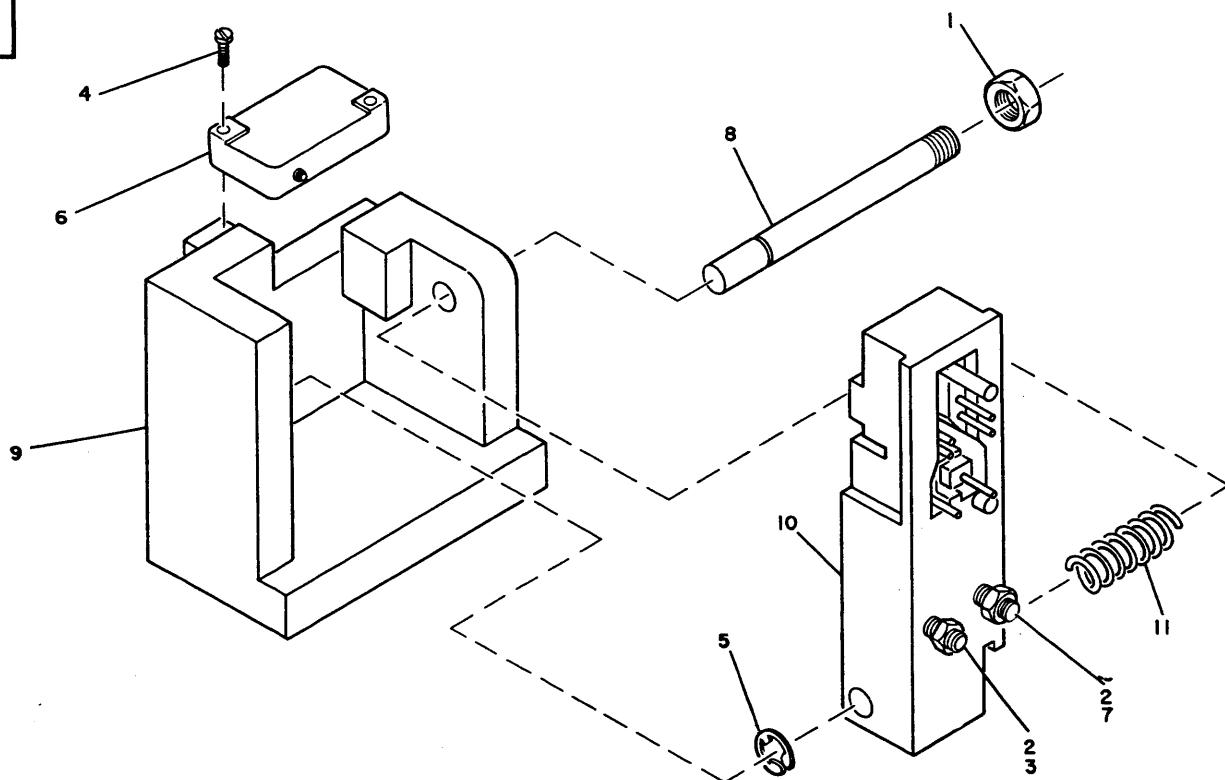


FIGURE 12. INDEX TRANSDUCER AND SUPPORT ASSEMBLY. SEE LIST 12.

INDEX TRANSDUCER AND SUPPORT ASSEMBLY			
*	*		REF
* 12 -	2180531	SUPPORT-TRANSDUCER ASSEMBLY, INDEX SEE LIST 5-97 FOR NEXT HIGHER ASM. AND FIGURE 12 FOR ILLUSTRATION	
- 1	11598	NUT, PLAIN, HEX- 10-32 X 3/8 FL W	1
- 2	257189	NUT, HEX., 8-32 X 0.3438 W	2
- 3	314372	SCREW, HEADLESS SET, 8-32 NC X 1.// LG.	1
- 4	438551	SCREW, MACH-BIND HD 4-40 X 5/8 LG	2
- 5	1092125	RING, LOCKING	1
- 6	2162551	SWITCH, SECTOR BLOCK	1
- 7	2162699	PLUNGER, SWITCH	1
- 8	2180525	PIN, INDEX PULSE PIVOT	1
- 9	2180527	SUPPORT, INDEX TRANSDUCER	1
- 10	2180613	TRANSDUCER ASSEMBLY, INDEX	1
- 11	2180625	SPRING, DOUBLE ACTING	1

FOR PARTS  
NOT SHOWN  
SEE FIG. 5

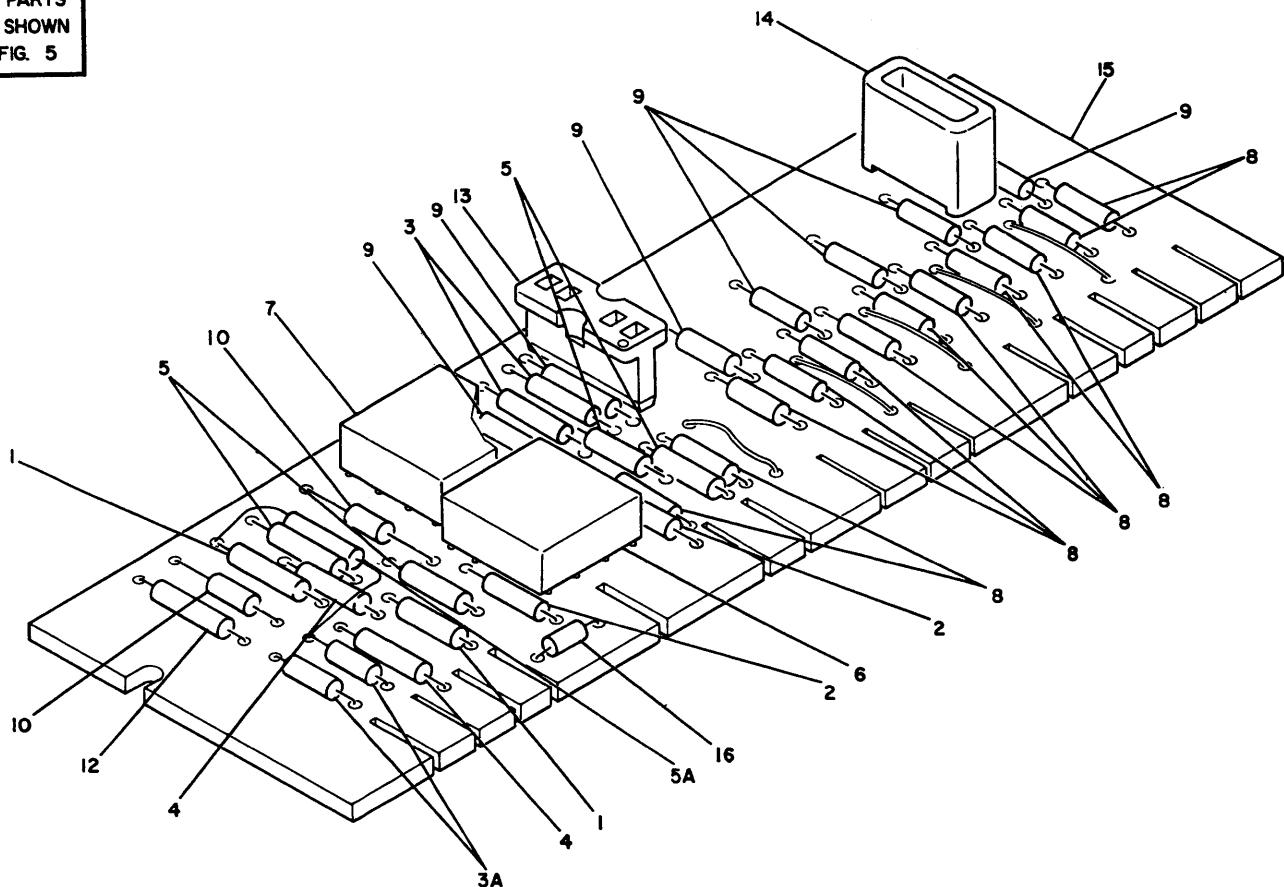


FIGURE 13. PREAMP READ CARD ASSEMBLY. SEE LIST 13.

PREAMP READ CARD ASSEMBLY				
*	13 -	CODE A USED ON ASM PRIOR TO H5 SUFFIX CODE B USED ON ASM FROM H5 TO P5 SUFFIX CODE C USED ON ASM FROM P5 TO CURRENT		
-	2180749	CARD ASSEMBLY, READ PREAMP. SEE LIST 5- 103 FOR NEXT HIGHER ASM. AND FIGURE 13 FOR ILLUSTRATION	REF	A
-	2181149-	CARD ASSEMBLY,READ PREAMP SEE LIST 5- 103 FOR NEXT HIGHER ASM. AND FIGURE 13 FOR ILLUSTRATION	REF	B
-	2244049 -	CARD ASSEMBLY,READ PREAMP SEE LIST 5- 103 FOR NEXT HIGHER ASM. AND FIGURE 13 FOR ILLUSTRATION	REF	C
-	1 216442	• RESISTOR, FDX CARB, 680 OHM, 1/4W, 5%	2	
-	2 216452	• RESISTOR, FDX CARB, 2K OHM, 1/4W, 5%	2	
-	3 216466	• RESISTOR, FDX, CARBON, 8.2K P/M 5% 1/4W	2	
-	3A 216472	• RESISTOR	2	B
-	4 216474	• RESISTOR, FDX CARB, 18K OHM, 1/4W, 5%	2	
-	5 216481	• RESISTOR, FDX CARB, 36K OHM, 1/4W, 5%	4	
-	5A 350428	• CAPACITOR - 100 UF	1	C
-	6 361479	• SLT MODULE, MEDIUM SPEED CIRCUIT	1	
-	7 361497	• SLT MODULE, LOW SPEED CIRCUIT	1	
-	8 369203	• SEMICONDUCTOR DEVICE,DIO-TYPE DD	12	A
-	8 369203	• SEMICONDUCTOR DEVICE,DIO-TYPE DD	12	B
-	8 2414895	• SEMICONDUCTOR DEVICE,DIODE	12	C
-	9 369599	• DIODE ASM, SEMICONDUCTOR- 75V 150 MA	7	A
-	9 369599	• DIODE ASM, SEMICONDUCTOR- 75V 150 MA	7	B
-	9 2414895	• SEMICONDUCTOR DEVICE,DIODE	7	C
-	10 491228	• CAPACITOR, FILM, .01 MFD P/M 10% 100 V INDEX 11-DELETED	2	
-	12 550050	• RESISTOR, CARBON, 240 OHM, 1/4W, 5%	1	
-	13 2160951	• SOCKET, PHENOLIC, 4 PINS	5	
-	14 2160959	• SPACER, SOCKET	5	
-	15 2180748	• CARD, ETCHED, READ PREAMP	1	A
-	15 2181148	• CARD,ETCHED-READ PREAMP	1	B
-	16 2414920	• MODULE, CAPACITOR TANTALUM-POLAR, 6.8 UF	1	

FOR PARTS  
NOT SHOWN  
SEE FIG. 5

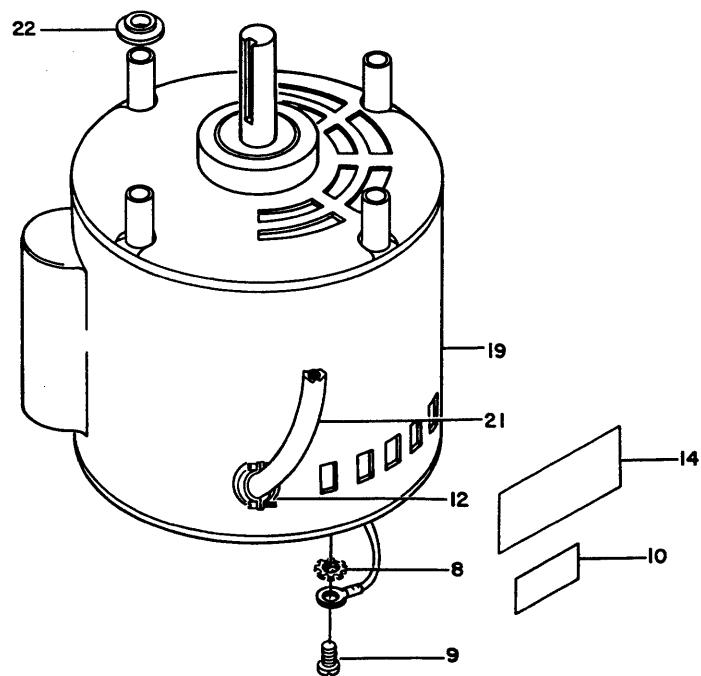
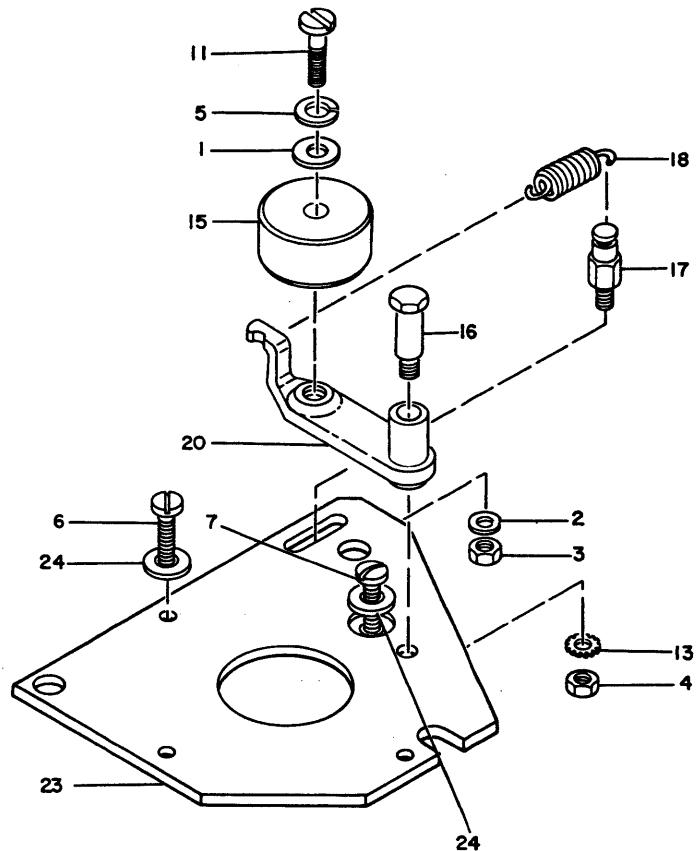


FIGURE 14. MOTOR DRIVE ASSEMBLY. SEE LIST 14.

LIST AND INDEX NO.	PART NO.	1 2 3 4	DESCRIPTION	UNITS PER ASM.	USABLE ON CODE
			MOTOR DRIVE ASSEMBLY		
14 -	2180986		<p>DRIVE ASSEMBLY, MOTOR      SEE LIST 5- 134 FOR NEXT HIGHER ASM.      AND FIGURE 14 FOR ILLUSTRATION</p> <ul style="list-style-type: none"> <li>• WASHER,FL- 3/8 X 13/16 OD X 1/16 THK 1</li> <li>• WASHER,FL 0.265 ID X 9/16 OD 1</li> <li>• NUT,PLAIN,HEX- 1/4-20 X 7/16 FL W 1</li> <li>• NUT,PLAIN,HEX- 5/16-18 X 1/2 FL W 1</li> <li>• WASHER,LOCK-SPLIT 3/8 ID X 0.688 OD 1</li> <li>• SCREW,MACH-BIND HD 8-32 X 1/2 LG 3</li> <li>• SCREW,MACH-BIND. HD 8-32 X 3/8 LG 1</li> <li>• WASHER,LOCK-EXT TEETH NO. 6 X 5/16 OD 1</li> <li>• SCREW - BINDING HEAD - SELF TAPPING 1</li> <li>• LABEL 1</li> <li>• SCREW, MACH, HEX HD 3/8-16 X 1/2 LG 1</li> <li>• CLAMP, CABLE 1</li> <li>• WASHER,LOCK-EXT TEETH 5/16 ID X 0.610 OD 1</li> <li>• LABEL, VOLTAGE 1</li> <li>• BEARING, 1.850 OD X 0.669 ID X 7/8 THK 1</li> <li>• PIVOT, IDLER PULLEY BAR 1</li> <li>• STUD, SPRING, 1/4-20 X 1-1/2 LG 1</li> <li>• SPRING, EXTENSION, 1.37 LG X 0.50 DIA 1</li> <li>• MOTOR, 1/2 HP, 50/60 CYCLE 1</li> <li>• ARM ASSEMBLY, IDLER DRIVE MOTOR 1</li> <li>• CABLE ASSEMBLY, MCTOR 1</li> <li>SEE LIST 19-3B, 3E, 5C, 34 AND 34A      FOR COMPONENT PARTS</li> <li>• INSULATOR, NYLON, .186 ID, .44 OD 4</li> <li>• PLATE, MOTOR MOUNT 1</li> <li>• WASHER, FIBER, .172 ID, .44 OD 8</li> </ul>	REF	

FOR PARTS  
NOT SHOWN  
SEE FIG. 5

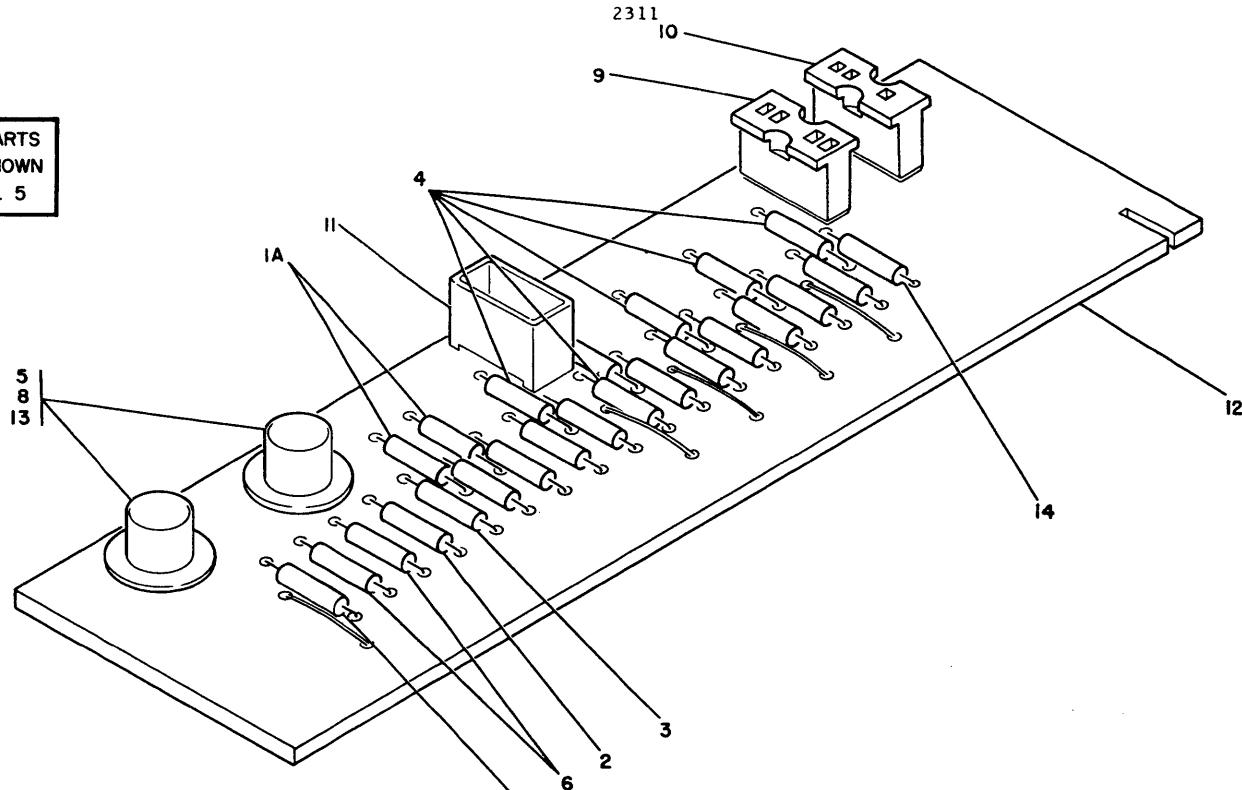


FIGURE 15. WRITE DRIVER CARD ASSEMBLY. SEE LIST 15.

WRITE DRIVER CARD ASSEMBLY

*	15 -	CODE A USED ON ASM PRIOR TO H5 SUFFIX CODE B USED ON ASM FROM H5 TO M5 SUFFIX CODE C USED ON ASM FROM M5 TO CURRENT CODE 1 USED ON ASM PRIOR TO D5 SUFFIX CODE 2 USED ON ASM FROM D5 TO H5 SUFFIX CODE 3 USED ON ASM FROM M5 TO F6 SUFFIX CODE 4 USED ON ASM FROM F6 TO CURRENT		
*	-	2181067 CARD ASSEMBLY, WRITE DRIVER SEE LIST 5- 138 FOR NEXT HIGHER ASM. AND FIGURE 15 FOR ILLUSTRATION	REF	A
*	-	2181213 CARD ASSEMBLY, WRITE DRIVER SEE LIST 5- 138 FOR NEXT HIGHER ASM. AND FIGURE 15 FOR ILLUSTRATION	REF	B
*	-	2181240 - CARD ASSEMBLY, WRITE DRIVER SEE LIST 5- 138 FOR NEXT HIGHER ASM. AND FIGURE 15 FOR ILLUSTRATION	REF	C
*	- 1	216432 RESISTOR	1	1A
*	- 1	216468 RESISTOR, FXD-COMP- 10K OHMS P/M 5% 1/4W	2	B
*	- 1A	216455 RESISTOR, FXD, COMP- 2.7K P/M 5% 1/4W	2	1A
*	- 1A	216460 RESISTOR, 4.7K OHM, 1/4W, 5%	2	2A
*	- 1A	216455 RESISTOR, FXD, COMP- 2.7K P/M 5% 1/4W	2	B
*	- 1A	216468 RESISTOR, FXD-COMP- 10K OHMS P/M 5% 1/4W	2	C
*	- 2	216461 RESISTOR, FXD CARB, 5.1K OHM, 1/4W, 5%	1	
*	- 3	216480 RESISTOR, FXD CARB, 33K OHM, 1/4W, 5%	1	
*	- 4	369599 DIODE ASM, SEMICONDUCTOR- 75V 150 MA	5	3C
*	- 4	2414895 SEMICONDUCTOR DEVICE, DIODE	5	4C
*	- 5	483070 SPACER, TRANSISTOR USED WITH TRANSISTOR 2414877 ONLY	2	
*	- 6	492551 COIL	2	1A
*	- 6	483224 RESISTOR, 36K OHM, 1/4W, 5% INDEX 7 DELETED	2	2A
*	- 6	483224 RESISTOR, 36K OHM, 1/4W, 5%	2	B
*	- 6	483224 RESISTOR, 36K OHM, 1/4W, 5%	2	C
*	- 8	811839 SINK, HEAT	2	
*	- 9	2160951 SOCKET, PHENOLIC, 4 PINS	5	
*	- 10	2160953 SOCKET, PHENOLIC, 3 PINS	1	
*	- 11	2160959 SPACER, SOCKET	6	
*	- 12	2180750 CARD, ETCHED, WRITE	1	
*	- 13	2414877 TRANSISTOR, SILICON TYPE 136, PNP	2	
*	- 13	369113 TRANSISTOR SUBSTITUTE FOR TRANSISTOR 2414877 USED WITH HEAT SINK 811839 ONLY	2	2A
*	- 14	2414895 DIODE, TYPE HA	12	

FOR PARTS  
NOT SHOWN  
SEE FIG. I

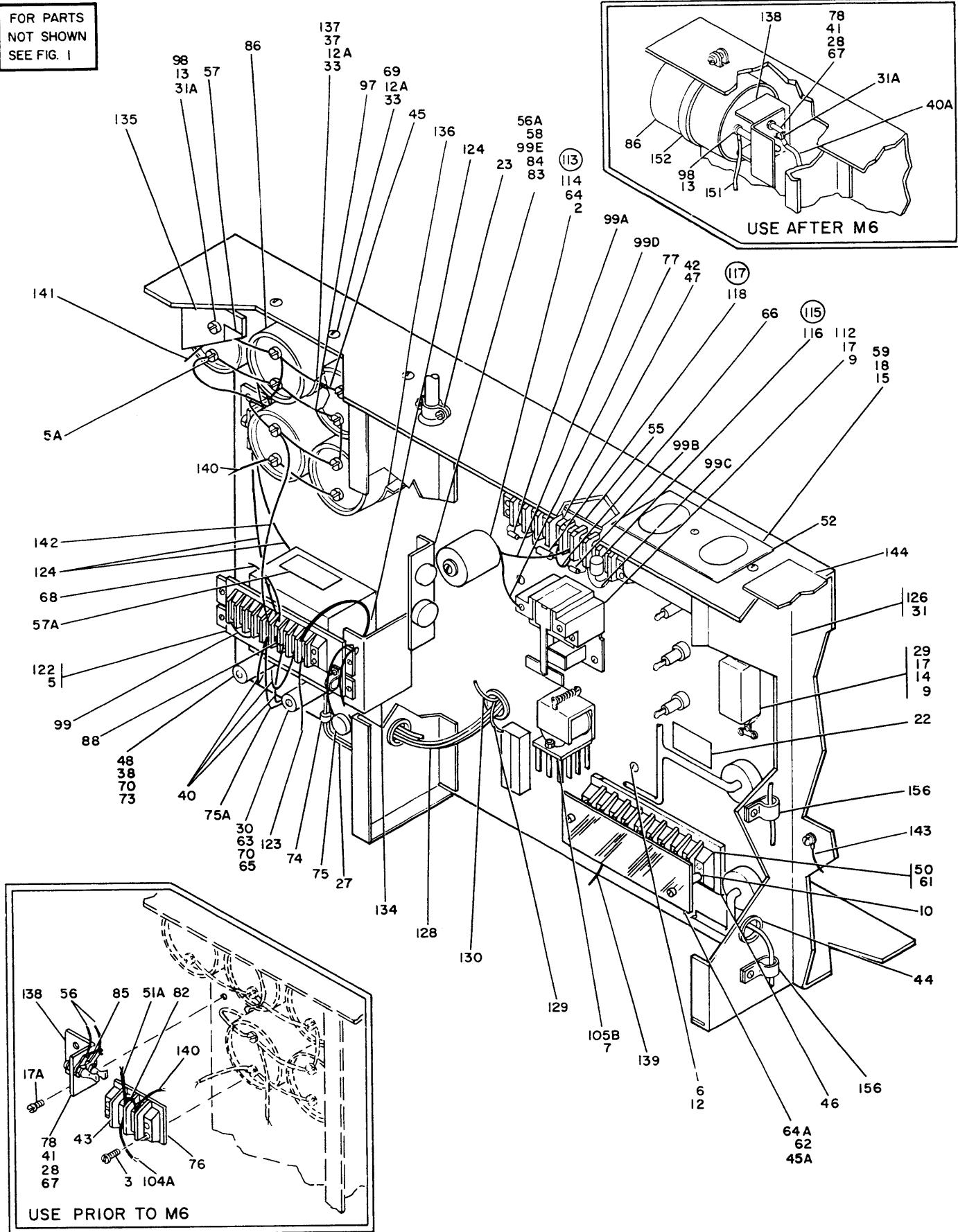


FIGURE 16. SEQUENCE PANEL ASSEMBLY. SHEET 1 OF 2. SEE LIST 16.

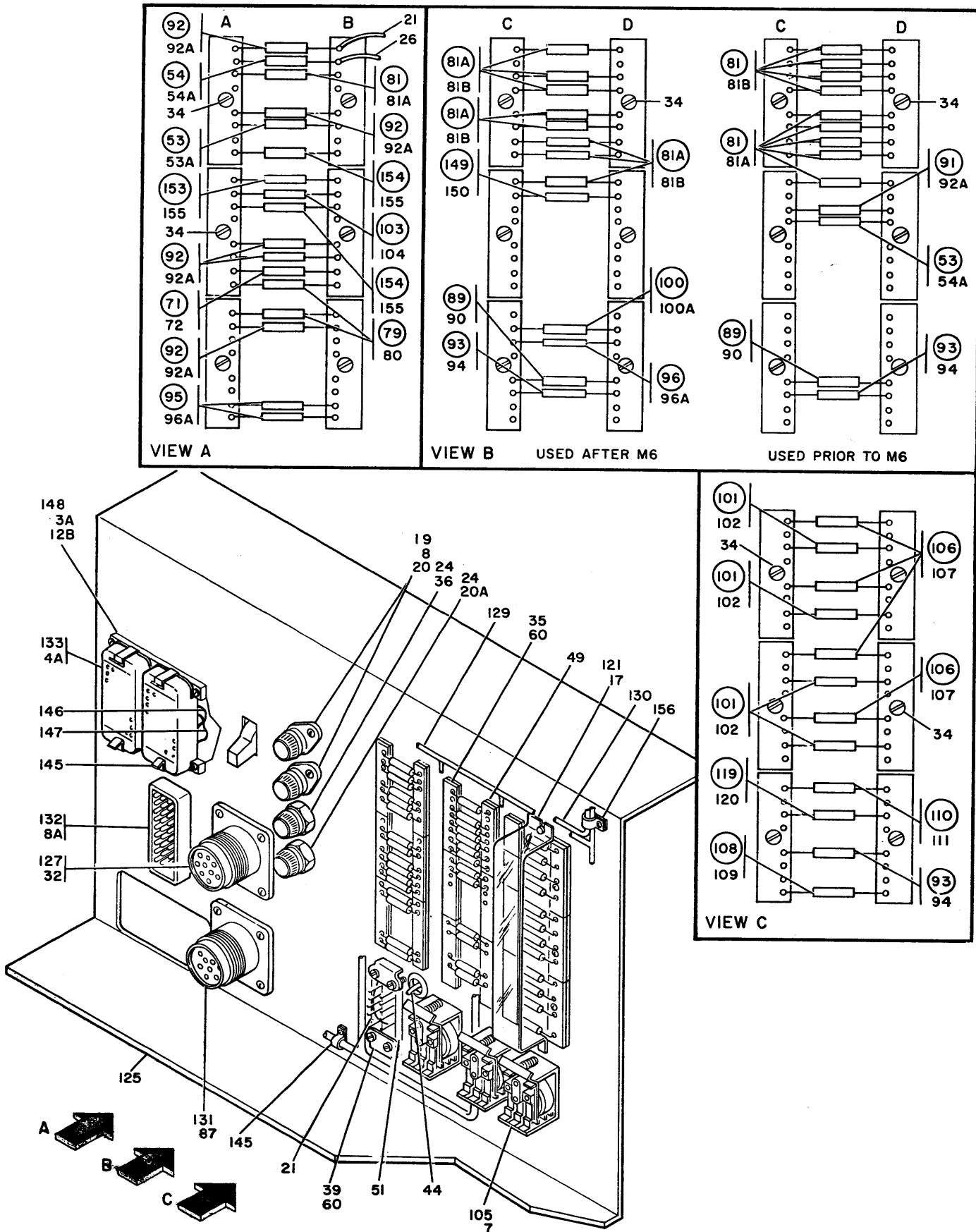


FIGURE 16. SEQUENCE PANEL ASSEMBLY. SHEET 2 OF 2. SEE LIST 16.

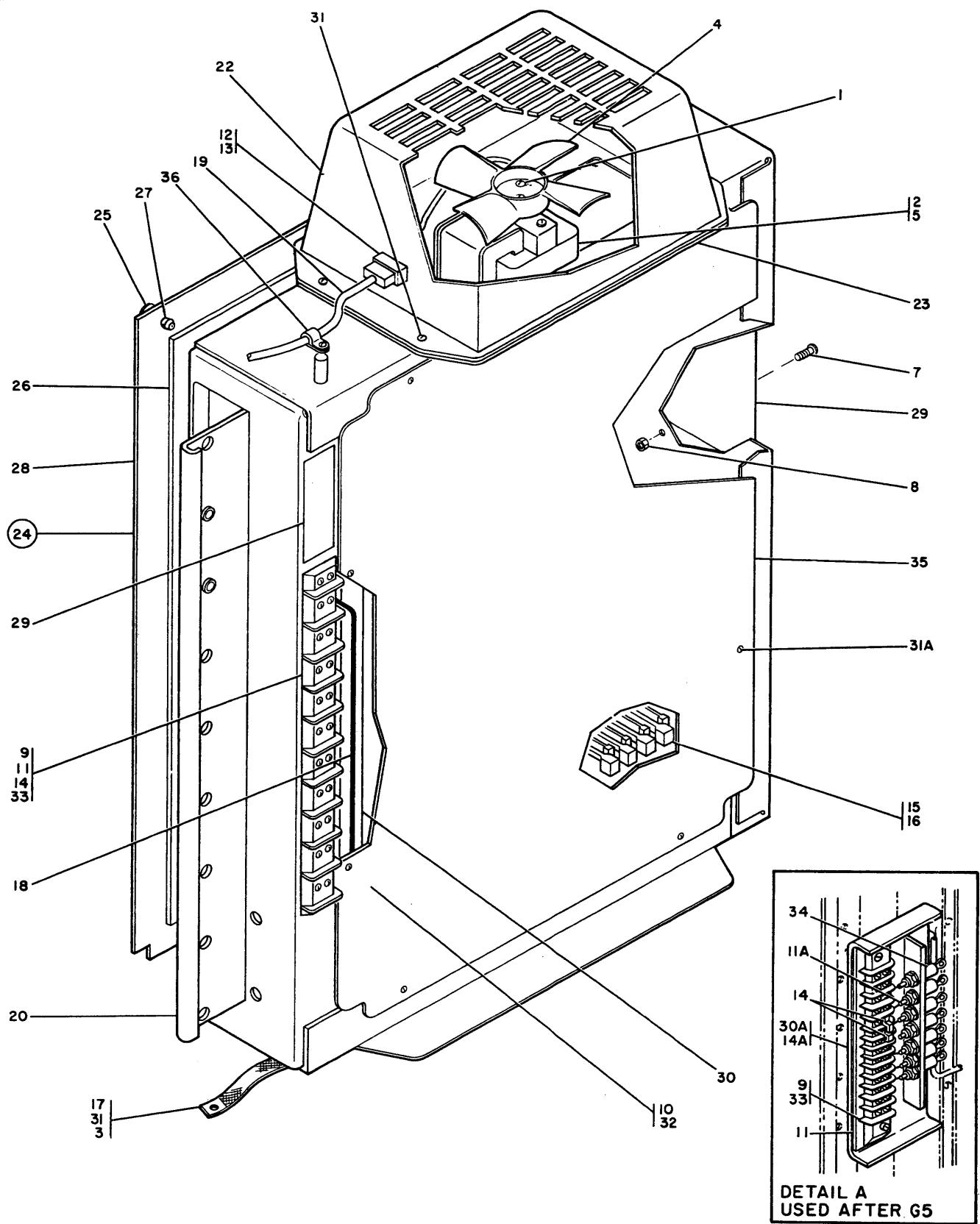
LIST AND INDEX NO.	PART NO.	1 2 3 4	DESCRIPTION	UNITS PER ASM.	USABLE ON CODE
SEQUENCE PANEL ASSEMBLY					
* 16 -			CODE A USED ON 60 CYCLE MACHINES CODE B USED ON 50 CYCLE MACHINES CODE 1 USED ON ASM PRIOR TO F5 SUFFIX CODE 2 USED ON ASM FROM F5 TO S5 SUFFIX CODE 3 USED ON ASM FROM F5 TO CURRENT CODE 4 USED ON ASM PRIOR TO S5 SUFFIX CODE 5 USED ON ASM FROM S5 TO M6 SUFFIX CODE 6 USED ON ASM FROM S5 TO CURRENT CODE 7 USED ON ASM PRIOR TO M6 SUFFIX CODE 8 USED ON ASM M6 TO CURRENT		
- -	2180680		PANEL ASSEMBLY, SEQUENCE, 60 CYCLE SEE LIST 1- 52 FOR NEXT HIGHER ASM. AND FIGURE 16 FOR ILLUSTRATION	REF	A
-	2180852		PANEL ASSEMBLY, SEQUENCE, 50 CYCLE SEE LIST 1- 52 FOR NEXT HIGHER ASM. AND FIGURE 16 FOR ILLUSTRATION	REF	B
* - 1	10170		• SCREW-MACH,BIND HD NO. 6-32 X .250 LG SEE LIST 1- 1B FOR NEXT HIGHER ASM.	REF	
- 2	22478		• WASHER, FLAT	1	
- 3	25627		• SCREW,MACH-BIND HD 8-32 X 1/2 LG	2	7
* - 3A	25627		• SCREW,MACH-BIND HD 8-32 X 1/2 LG SEE LIST 1- 2A FOR NEXT HIGHER ASM.	REF	6
- 4	25627		• SCREW,MACH-BIND HD 8-32 X 1/2 LG	2	A
- 4	58207		• SCREW,MACH BNDG HD 8-32 X 1/4 LG	2	B
* - 4A	38264		• SCREW,MACH-FIL H 4-40 X 3/8 LG	REF	4
* - 4A	2181207		• SCREW,THD FORMING-FIL H 6-32 X 1/4 LG SEE LIST 1- 4 FOR NEXT HIGHER ASM.	REF	6
- 5	28413		• SCREW,MACH BINDING HD 10-32 X 5/16 LG	4	
- 5A	28413		• SCREW,MACH-BIND HD 10-32 X 5/16 LG	8	4
- 5A	236849		• SCREW,BINDING HEAD MACHINE	8	5
- 6	34512		• SCREW,BIND.HD 8-32 X .375 LG	5	
- 6A	34512		• SCREW,BIND.HD 8-32 X .375 LG SEE LIST 1- 2B FOR NEXT HIGHER ASM.	REF	6
- 7	35739		• SCREW, MACH-BIND HD NO. 6-32 X 15/16 LG	4	
- 8	38235		• SCREW,MACH-FIL H 6-32 X 5/16 LG	4	
* - 8A	38354		• SCREW,MACH-FIL H 6-32 X 1/2 LG SEE LIST 1- 4A FOR NEXT HIGHER ASM.	REF	
- 9	45690		• WASHER, FLAT, 0.203 ID X 0.438 OD	4	
- 10	54291		• SPACER	2	
- 11	55726		• SCREW, MACH-BIND HD NO. 6-32 X 3/16 LG SEE LIST 1- 6 FOR NEXT HIGHER ASM.	REF	
* - 12	55901		• LOCKWASHER, EXTERNAL TOOTH	5	
* - 12A	55901		• LOCKWASHER, EXTERNAL TOOTH	2	7
* - 12B	55901		• LOCKWASHER, EXTERNAL TOOTH SEE LIST 1- 6A FOR NEXT HIGHER ASM.	REF	6
- 13	56079		• WASHER,LOCK-EXT TEETH NO. 10 X 0.410 OD	2	
- 14	56121		• WASHER,LOCK-INT TEETH NO. 10 X 0.381 OD	2	
- 15	56722		• WASHER,LOCK-EXT TEETH NO. 6 X 5/16 OD	2	
- 17	58207		• SCREW,MACH-UNDRCT BIND HD 8-32 X 1/4 LG	6	
* - 17A	58207		• SCREW,MACH-UNDRCT BIND HD 8-32 X 1/4 LG	2	7
- 18	91610		• SCREW,BINDING HD SELF TAPPING	2	
- 19	104615		• MOUNT-FUSE	2	
- 20	107668		• FUSE,CTG-SLOW BLOW 8 AMP 250V	2	
- 20A	111257		• FUSE,CARTRIDGE- 4 AMP 250V	1	5
* - 21	129243		• JUMPER ASM-BLU 3-1/2 20AWG 1 LUG EA END	23	7
* - 21	129243		• JUMPER ASM-BLU 3-1/2 20AWG 1 LUG EA END SEE LIST 19-7, FOR COMPONENT PARTS	24	8
- 22	138755		• LABEL	1	
- 23	151598		• CLAMP, CABLE	1	
- 24	179946		• HOLDER-FUSE INDEX 25 DELETED	1	1
* - 26	205331		• JUMPER-RELAY GATES UNIT 1/8 BRASS	21	1
* - 26	205331		• JUMPER-RELAY GATES UNIT 1/8 BRASS	20	2
* - 26	205331		• JUMPER-RELAY GATES UNIT 1/8 BRASS	18	5
* - 26	205331		• JUMPER-RELAY GATES UNIT 1/8 BRASS	17	8
- 27	207353		• CAPACITOR, ELECTROLYTIC, 8 MFD 330VAC	1	A
- 27	8010761		• CAPACITOR, 18 MF	1	B
- 28	217019		• WASHER, INSULATING, 1 IN. DIA X 0.004THK	4	
- 29	220278		• SWITCH, ON-OFF, 115V-230V, 5AMP	1	
- 30	221110		• RESISTOR,200 OHM,P/M 5 PERCENT,25W	1	

LIST AND INDEX NO.	PART NO.	1 2 3 4	DESCRIPTION	UNITS PER ASM.	USABLE ON CODE
			SEQUENCE PANEL ASSEMBLY -CONT		
* 16 - 31	236849				
- 31	2181004		• SCREW, BINDING HEAD MACHINE	6	7
- 31A	28413		• SCREW, THREAD FORMING-HEX WASHER HD	6	8
- 31A	236849		• SCREW, MACH-BIND HD 10-32 X 5/16 LG	2	7
- 32	251970		• SCREW, BINDING HEAD MACHINE	2	8
- 33	257189		• SCREW-MACH BD. HD. 4-40 X 1/4 LG	2	1
- 34	257985		• NUT - HEX-8-32UNC THD	2	7
- 35	302090		• WASHER, FLAT-NO. 4 X 0.250 OD X 0.028 THK	5	1
- 36	303549		• FUSE, SLOW BLOW, 1.0 AMP, 250 VOLT	18	
- 37	304477		• SCREW, MACH-RH 8-32 X 2-1/4 LG	1	7
- 38	304479		• SCREW, MACH-RH 8-32 X 4-3/4 LG	1	1
- 39	308704		• CLIP, MOLDING	2	
- 40	311540		• JUMPER ASM-BLK 8 IN. 16AWG 1 LUG EA END SEE LIST-19-3B, FOR COMPONENT PARTS	3	
- 40A	311540		• JUMPER ASM-BLK 8 IN. 16AWG 1 LUG EA END SEE LIST 19- 3B FOR COMPONENT PARTS	2	8
- 41	316996		• LUG	2	
- 42	317145		• BLOCK, BARRIER TERMINAL	1	
- 43	317193		• TERMINAL BLOCK	1	7
- 44	317279		• GROMMET,RUB-FOR 1 HOLE X 1/16 PNL	3	
- 45	319985		• JUMPER ASSEMBLY SEE LIST 19-18A, FOR COMPONENT PARTS	3	7
- 45A	322065		• SCREW,MACH-BIND HD 6-32 X 5/8 LG	2	3
- 46	322289		• STRIP, MARKER, 1-4	1	
- 47	322550		• SCREW, MACH-BIND HD NO. 6-32 X 1/2 LG	2	
- 48	322739		• RESISTOR, FWD 50 OHMS P/M 5% 50W	1	
- 49	322792		• INSULATOR, TERMINAL BLOCK	18	
- 50	323845		• TERMINAL BOARD- 4 DBL SCREW TERMINALS	1	3
- 51	328602		• UNIT, RC	2	
- 51A	350559		• JUMPER ASSEMBLY	1	7
- 52	359018		• COVER,OUTLET BOX	1	
- 53	359511		• CAPACITOR ASSEMBLY	1	4
- 54	359511		• CAPACITOR ASSEMBLY	2	
- 54A	2102160		• . CAPACITOR, PAPER, 0.1 MFD P/M 20% 400V	1	
- 55	360339		• MARKER, TERMINAL	1	
- 56	360831		• CABLE SEE LIST 19-18, FOR COMPONENT PARTS	2	7
- 56A	362915		• LABEL, IBM, BLACK LETTERS ON WHITE SEE LIST 1- 23 FOR NEXT HIGHER ASM.	REF	
- 57	369207		• LABEL-ENGLISH	1	7
- 57A	369207		• LABEL-ENGLISH	1	8
- 58	372688		• CARD ASSEMBLY SEE LIST 1- 25 FOR NEXT HIGHER ASM.	REF	
- 59	418835		• OUTLET-CONVENIENCE,220V-50 CY	1	1A
- 59	357995		• OUTLET-CONVENIENCE,125V-60 CY	1	2A
- 59	418835		• OUTLET-CONVENIENCE,220V-50 CY	1	5A
- 59	357995		• OUTLET-CONVENIENCE,125V-60 CY	1	8A
- 59	418835		• OUTLET-CONVENIENCE,220V-50 CY	1	B
- 60	438550		• SCREW,MACH-BIND HD 4-40 X 0.5 LG	20	
- 61	438567		• SCREW,MACH-UNDRCT BIND HD 6-32 X 1 LG	2	1
- 61	438568		• SCREW,MACH-UNDRCT BIND HD 6-32 X 1-1/8	2	3
- 62	438571		• SCREW, BINDING HEAD, 6-32 NC X 1-3/4 LG.	2	
- 63	438582		• SCREW	1	
- 64	438588		• SCREW,MACH-UNDRCT BIND HD 8-32 X 1-1/4	1	1
- 64	438589		• SCREW,MACH-BIND HD 8-32 X 1-1/2 LG	1	3
- 64A	438891		• SHIELD, CLEAR SAFETY, 4 POSITION	1	
- 65	442958		• WASHER,MICA	2	
- 65A	472179		• JUMPER ASSEMBLY NOT ILLUSTRATED	1	2
- 66	472187		• JUMPER	1	
- 67	473582		• INSULATOR	2	1
- 67	419131		• SLEEVE,.195 I.D.,.275 O.D.X .050 THICK	2	3
- 68	480612		• JUMPER ASSEMBLY, 2-3/4 IN. LONG	1	1
- 69	504698		• SCREW,MACH-RH 8-32 X 4-1/4 LG	1	
- 70	507144		• WASHER,CENTERING	4	
- 71	509968		• RESISTOR ASSEMBLY, 200 OHM 1/2W	1	
- 72	317006		• . RESISTOR,FWD,COMP- 200 OHMS P/M 5% 1/2W	1	
- 73	521695		• WASHER,MICA	2	
- 74	524928		• BRACKET,CAPACITOR MTG	2	A
- 74	4121202		• CLAMP, CAPACITOR	2	B
- 75	526378		• INSULATOR,CAPACITOR	2	A

LIST AND INDEX NO.	PART NO.	1 2 3 4	DESCRIPTION	UNITS PER ASM.	USABLE ON CODE
SEQUENCE PANEL ASSEMBLY -CONT					
* 16 - 75A	561509		• JUMPER ASSEMBLY	1	
* - 75A	2181090		• JUMPER ASSEMBLY	1	5
* - 76	589768		• INSULATOR, TERMINAL BOARD	1	7
* - 77	597215		• JUMPER ASSY, GROUND 4-1/2 IN LG SEE LIST 19-18, FOR COMPONENT PARTS	1	
* - 78	598479		• RECTIFIER,SILICON	2	
* - 79	603541		• CAPACITOR ASSEMBLY	2	
* - 80	535299		• • CAPACITOR,0.1 MFD P/M 10 PERCENT,100VDCW	1	
* - 81	615354		• DIODE ASSEMBLY	1	1
* - 81	2162849		• DIODE ASM	1	5
* - 81	2162849		• DIODE ASM	9	5
* - 81A	615354		• DIODE ASSEMBLY	9	1
* - 81A	2162849		• DIODE ASM	9	3
* - 81B	2111232		• • SEMICCONDUCTOR DEVICE-DIODE USED ON ASM 615354 ONLY	1	
* - 81B	241927		• • SEMICONDUCTOR DEVICE-DIODE TYPE HF USED ON ASM 2162849 ONLY	1	
* - 82	730468		• JUMPER-TERMINAL STRIP	1	7
* - 83	740493		• BRACKET, CARD MOUNTING SEE LIST 1- 28 FOR NEXT HIGHER ASM.	REF	
* - 84	740550		• JUMPER ASSEMBLY, 2-1/2 INCH SEE LIST 1- 29 FOR NEXT HIGHER ASM.	REF	
* - 85	801620		• JUMPER-BLK 2.50 IN. 18AWG	1	7
* - 86	801645		• CAPACITOR, ELECTROLYTIC, 5500 MFD 45VDC	5	7
* - 86	2181284		• CAPACITOR,FXD,ELECTROLYTIC, 22000 MFD	1	8
* - 87	803278		• SCREW, MACH, RH 10-24 X 5/16 LG	4	
* - 88	1143227		• BARRIER, JUMPER,	1	A
* - 88	1143227		• BARRIER, JUMPER,	1	4B
* - 88	472187		• JUMPER-BRASS	1	6B
* - 89	2102710		• RESISTOR ASSEMBLY, 10 OHM 1/2W	1	
* - 90	321271		• • RESISTOR,FXD,COMP- 10 OHMS P/M 5% 1/2W	1	
* - 91	2103070		• RESISTOR ASSEMBLY, 330 OHM 1/2W	1	4
* - 92	2103070		• RESISTOR ASSEMBLY, 330 OHM 1/2W	5	
* - 92A	317248		• • CONNECTOR,PLUG,ELEC- 2 FEMALE CONTACTS	1	
* - 93	2103102		• CAPACITOR ASSEMBLY, 1MFD 200VDC	2	
* - 94	2102374		• CAPACITOR, PAPER, 1.0 MFD P30/M20% 200V	1	
* - 95	2103552		• RESISTOR ASSEMBLY, 1K OHM, 2W	2	
* - 96	2103552		• RESISTOR ASSEMBLY, 1K OHM, 2W	1	8
* - 96A	317082		• • RESISTOR,FXD,COMP- 1K P/M 5% 2W	1	
* - 97	2114054		• JUMPER ASSEMBLY, 2-5/8 INCHES LONG SEE LIST 19-4B, FOR COMPONENT PARTS	4	7
* - 98	2114312		• STUD, MALE - FEMALE, 10-32 X .94 LONG	2	
* - 99	2114480		• JUMPER ASM SEE LIST 19-3D, FOR COMPONENT PARTS	1	
* - 99A	2124546		• RESISTOR ASSEMBLY- 6.8 K 1/2 W	1	4B
* - 99B	338320		• CAPACITOR ASSEMBLY- 1 MFD 600 VDC	3	
* - 99C	2114481		• JUMPER ASSEMBLY	1	
* - 99D	2114490		• JUMPER ASSEMBLY, 5-1/2 INCHES LONG SEE LIST 19- 3D FOR COMPONENT PARTS	1	
* - 99E	2125765		• LOCKWASHER, DISHED SEE LIST 1- 30 FOR NEXT HIGHER ASM.	REF	
* -100	2129359		• RESISTOR ASSEMBLY, 300 OHMS 1/2 WATT	1	8
* -100A	317008		• • RESISTOR,FXD- 300 OHMS 1/2 WATT	1	
* -101	2129362		• RESISTOR ASSEMBLY, 150 OHM 10 W	4	
* -102	2102625		• • RESISTOR, FXD, W/W 150 OHM P/M 5% 10W	1	
* -103	2130557		• RESISTOR ASSEMBLY, 5.6K OHM, 1/2W	1	
* -104	317430		• • RESISTOR	1	
* -104A	2152818		• JUMPER ASSEMBLY	1	7
* -105	2154687		• RELAY, ARMATURE, 3PDT, 36VDC	2	
* -105A	2154687		• RELAY, ARMATURE, 3PDT, 36VDC	1	7
* -105B	2154687		• RELAY, ARMATURE, 3PDT, 36VDC	1	7
* -105B	2218668		• RELAY,ARMATURE, 3PDT 36VDC	1	8
* -106	2154914		• RESISTOR ASM	4	
* -107	595261		• • RESISTOR,FXD,WW- 20 OHMS P/M 5% 10W	1	
* -108	2154915		• CAPACITOR ASSEMBLY	1	
* -109	2109462		• • CAPACITOR, ELECT., 250 MFD P/M 10% 50 V	1	
* -110	2157392		• RESISTOR ASSEMBLY, 100 OHM 20W	1	
* -111	285955		• • RESISTOR,FXD,WW- 100 OHMS 20W	1	
* -112	2160789		• RELAY, MOTOR, 36 VOLT 25 AMP	1	
* -113	2160790		• CHOKE ASSEMBLY, TOROID	1	
* -114	2160804		• • CHOKE, RF FILTER	1	
* -115	2160805		• CAPACITOR ASSEMBLY, 0.1UF 600VDC	3	
* -116	286531		• • CAPACITOR, PAPER, 0.01 MFD P/M 20% 600V	1	
* -117	2160808		• RESISTOR ASSEMBLY, 47 OHM 2W	1	4
* -117	2160808		• RESISTOR ASSEMBLY, 47 OHM 2W	2	6

SEQUENCE PANEL ASSEMBLY -CONT			
16	-118	335329	
	-119	2160826	. . RESISTOR, FIXED 47 OHM 2 W
	-120	317077	. . RESISTOR ASSEMBLY, 10 OHM 50VDC 2W
*	-121	2160847	. . RESISTOR, FWD, COMP, 10 OHM P/M 5% 2W
*	-122	2178420	. COVER, SAFETY
*	-122	2181332	. TRANSFORMER ASM
*	-122	4117458	. TRANSFORMER ASSEMBLY, 36V 60 CYCLE
*	-122	2181258	. TRANSFORMER ASSEMBLY, 36V 50 CYCLE
*	-123	2178516	. JUMPER ASSEMBLY, 8-1/2 INCHES LONG SEE LIST 19-3C, FOR COMPONENT PARTS
*	-124	2178523	. JUMPER ASSEMBLY, 12-1/2 INCHES LONG
-125	2180677	. PANEL, SEQUENCE	
-126	2180678	. HOUSING, SIDE PANEL	
-127	2180681	. CABLE ASSEMBLY, AC JUMPER SEE LIST 19-3, 3B, 3C, 4B, 5B, 17A, 18, 40 AND 75 FOR COMPONENT PARTS	
-127	2180854	. CABLE ASSY., AC JUMPER, 50 CYCLE SEE LIST 19-3, 3B, 3C, 3E, 4B, 5, 5B, 5C, 17A, 18, 40 AND 75 FOR COMPONENT PARTS	
-128	2180682	. CABLE ASSEMBLY, SEQUENCE PANEL TO GATE SEE LIST 19-6B, 6D, 7A, 20, 55 AND 62 FOR COMPONENT PARTS	
-129	2180685	. CABLE ASSEMBLY, SEQUENCE PANEL JUMPER SEE LIST 19-6B, 6D, 7A, 7C, 8A, 10, 10A, 11, 11A, 57 AND 75 FOR COMPONENT PARTS	
-130	2180686	. CABLE ASSEMBLY, SOLENOID AND INTERLOCK SEE LIST 19-3C, 4, 6B, 6D, 7A, 21, 22, 23, 32, 35A, 56 AND 56A FOR COMPONENT PARTS	
-131	2180688	. CABLE ASSEMBLY, AC INPUT JUMPER SEE LIST 19-3, 4B, 5B AND 41 FOR COMPONENT PARTS	
-131	2180853	. CABLE ASSY., AC INPUT JUMPER, 50 CYCLE SEE LIST 19-3, 4B, 5B AND 41 FOR COMPONENT PARTS	
-132	2180691	. CABLE ASSEMBLY, DC TO GATE SEE LIST 1- 55 FOR NEXT HIGHER ASM. AND LIST 19-3, 3B, 3E, 10A, 20, 43, 43A, 43B, 44, 46, 49, 52, 55 AND 62 FOR COMPONENT PARTS	
-133	2180692	. CABLE ASSEMBLY, SIGNAL PLUG TO GATE SEE LIST 1- 56 FOR NEXT HIGHER ASM. AND LIST 19-9A, 9B, 10, 20, 25, 26, 55 AND 62 FOR COMPONENT PARTS	
*	-133	2181189	. CABLE ASSEMBLY-SIGNAL PLUG TO GATE SEE LIST 1- 56 FOR NEXT HIGHER ASM. AND LIST 19-10A, 10B, 11B, 20, 55, 62, 63 AND 63A FOR COMPONENT PARTS
*	-134	2180753	. SHIELD, TRANSFORMER
*	-135	2180755	. SHIELD, 4.250 X 7.00
*	-136	2180841	. CLAMP, CAPACITOR
*	-137	2180842	. CLAMP, CAPACITOR
*	-138	2180843	. BRACKET, DIODE MOUNTING
*	-138	2181388	. HEAT SINK, DIODE
*	-139	2180969	. JUMPER ASSEMBLY, 12 INCHES LONG SEE LIST 19-3, FOR COMPONENT PARTS
*	-140	2180970	. JUMPER ASSEMBLY, 7-1/4 INCHES LONG SEE LIST 19-4B, FOR COMPONENT PARTS
*	-141	2180977	. JUMPER ASSEMBLY, 8 INCHES LONG SEE LIST 19-4B, FOR COMPONENT PARTS
*	-142	2180978	. JUMPER ASSEMBLY, 5 INCHES LONG SEE LIST 19-3C AND 3D FOR COMPONENT PARTS
*	-143	2181013	. JUMPER ASSEMBLY
*	-143	5308492	. RESISTOR ASSEMBLY- 750 OHMS 1/2 WATT
*	-144	2181092	. LABEL
*	-144	2181092	. LABEL
*	-145	2181199	. CLIP-STRAIN RELIEF
*	-146	2181204	. JUMPER ASSEMBLY
*	-147	2181205	. JUMPER ASM-GRN/YEL 1 LUG 2 SOCK CONTACTS
*	-148	2181206	. BAR, ADAPTER
*	-149	2181277	. INDUCTOR ASSEMBLY, 100 UH
*	-150	491292	. . INDUCTOR, FWD- 100 UH
*	-151	2181334	. JUMPER ASSEMBLY
*	-152	5212727	. CLAMP, CAPACITOR
*	-153	5308492	. RESISTOR ASSEMBLY- 750 OHMS 1/2 WATT
*	-154	5308492	. RESISTOR ASSEMBLY- 750 OHMS 1/2 WATT
*	-155	317015	. . RESISTOR, FWD, COMP- 750 OHMS P/M 5% 1/2W
*	-156	NO NO.	. CABLE CLAMP, SEE LIST 19-2

FOR PARTS  
NOT SHOWN  
SEE FIG. 1



LIST AND INDEX NO.	PART NO.	1 2 3 4	DESCRIPTION	UNITS PER ASM.	USABLE ON CODE
			GATE ASSEMBLY		
* 17 -			CODE 1 USED ON ASM PRIOR TO G5 SUFFIX CODE 2 USED ON ASM FROM G5 TO A6 SUFFIX		
* -	2180740		GATE ASSEMBLY USED ON MACHINES PRIOR TO A6 SUFFIX SEE LIST 1- 61 FOR NEXT HIGHER ASM AND FIGURE 17 FOR ILLUSTRATION	REF	
* - 1	2863		SCREW, MACH-RH 3-48 X 0.250 LG	2	1
* - 2	32042		SCREW, MACH BIND. HD 10-32 X 3/8 LG.	2	1
* - 3	56722		WASHER,LOCK-EXT T .141 ID	1	1
* - 3	2125765		LOCKWASHER, DISHED	1	2
* - 4	171485		BLADE,FAN	1	1
* - 5	172999		MOTOR- 230V AC	1	1
			INDEX 6 DELETED		
- 7	234318		SCREW,ASSEM WASH-FIL H 8-32 X 3/8 LG	1	
- 8	257189		NUT, HEX., 8-32 X 0.3438 W	1	
- 9	320451		STRIP,BARRIER TERMINAL	1	
- 10	344015		NUT,STOP 6-32 X 5/16 FL W	2	
- 11	550578		STRIP,MARKER	1	
- 11A	596481		JUMPER ASSEMBLY	7	2
- 12	609687		CONTACT	2	1
- 13	725558		COVER-CONNECTOR	1	1
- 14	730468		JUMPER-TERMINAL STRIP	2	2
- 14A	81693		SCREW,MACH-BIND HD 6-32 X 3/8 LG	4	2
			USED ON FIELD MODIFIED MACHINE ONLY		
- 14A	2181005		SCREW, SELF TAPPING, 6-32 X .375 LG.	4	2
- 15	811804		GUIDE, CARD	16	
- 16	813621		POST, GUIDE	19	
- 17	2101089		STRAP,GROUND,518 X 7 IN.	1	
- 18	2180683		CABLE ASSEMBLY, GATE DC JUMPER SEE LIST 19-4, 29, 30, 65, 66 AND 66A FOR COMPONENT PARTS	1	
- 19	2180689		CABLE ASSEMBLY-GATE FAN SEE LIST 19-5, 22, 23, 56 AND 56A FOR COMPONENT PARTS	1	1
- 20	2180720		GATE WELDMENT ASSEMBLY INDEX 21 DELETED	1	
- 22	2180721		ENCLOSURE, FAN	1	1
- 23	2180722		PLATE, FAN ENCLOSURE	1	1
- 24	2180744		COVER ASSEMBLY, GATE	1	
- 25	2178597		PLUNGER, NYLATCH	2	
- 26	2180727		FOAM, 9 X 12, .13 THICK	1	
- 27	2180733		GROMMET, COVER LATCH	2	
- 28	2180974		COVER, SLT GATE	1	
- 29	2180797		DECAL, DC TB AND TEST POINTS	1	
- 30	2180972		CLAMP, PADDLE CONNECTOR, SLT	1	
- 30A	2180933		BALL-SPPOOL PLUG	1	2
- 31	2181005		SCREW, SELF TAPPING, 6-32 X .375 LG.	5	1
- 31	2181005		SCREW, SELF TAPPING, 6-32 X .375 LG.	1	2
- 31A	2181005		SCREW, SELF TAPPING, 6-32 X .375 LG.	6	1
- 31A	811417		SCREW,HEX SOCKET H- 6-32 X 1/2 LG	6	2
- 32	2181006		SCREW, SELF TAPPING, 6-32 X 1.00 LG.	2	1
- 32	2181088		SCREW	2	2
- 33	2181007		SCREW, SELF TAPPING, 6-32 X .625 LG.	4	1
- 33	2181007		SCREW, SELF TAPPING, 6-32 X .625 LG.	2	2
- 34	2192509		CAPACITOR,FXD-0.1 UF100V	7	
- 35	5811144		BOARD, SLT-01A-B1	1	2
- 36	NO NO.		CABLE CLAMP, SEE LIST 19-2	AR	1

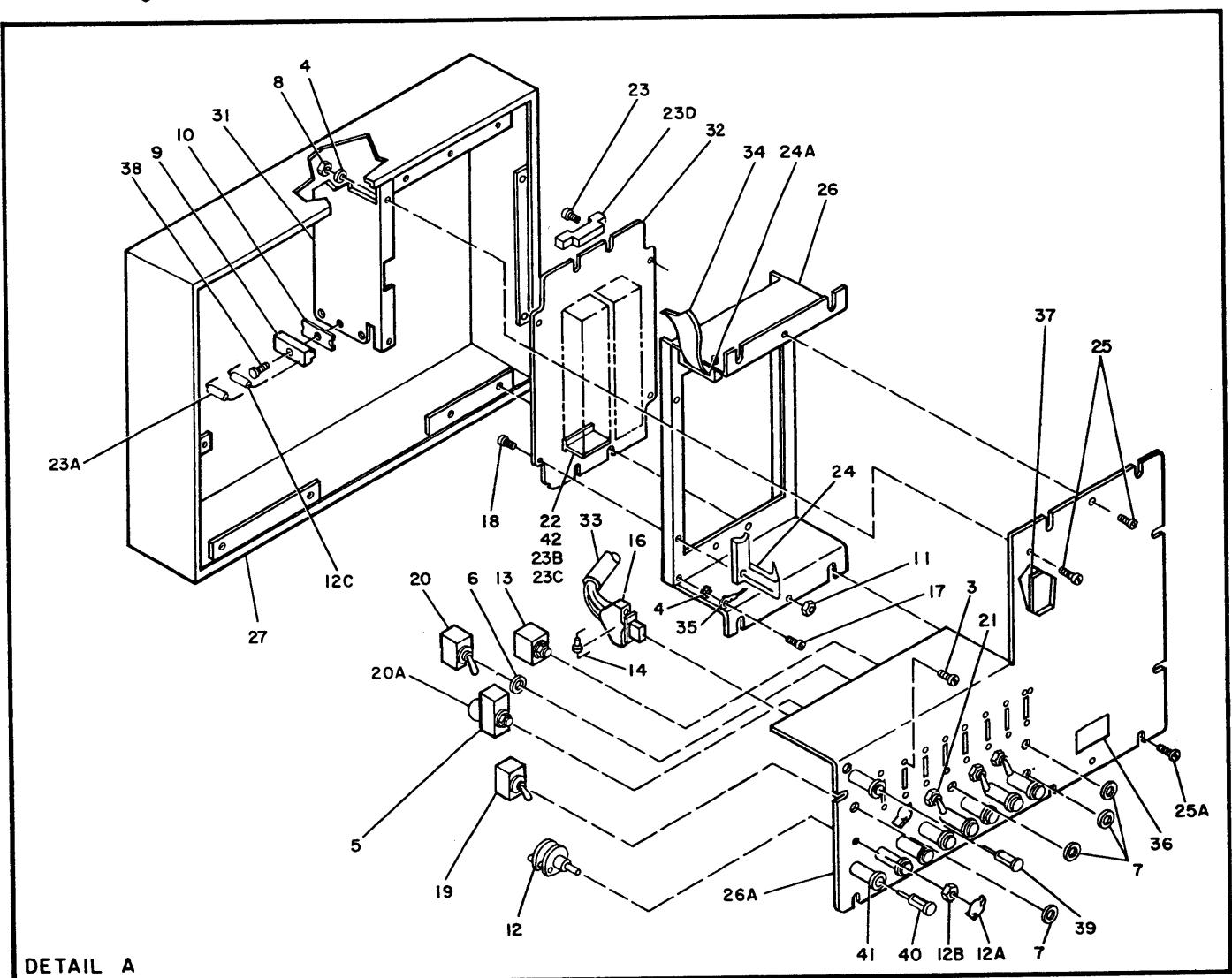
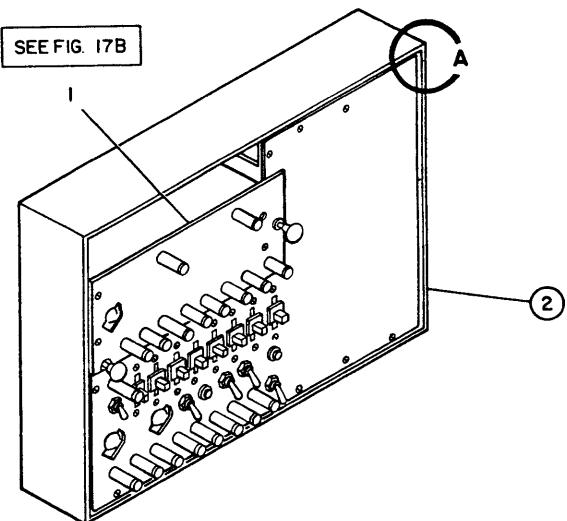


FIGURE 17A. C.E. BOX ASSEMBLY. SEE LIST 17A.

17A-		C.E. BOX ASSEMBLY.	
		CODE 1 USED ON ASM PRIOR TO M5 SUFFIX CODE 2 USED ON ASM FROM M5 TO P5 SUFFIX CODE 3 USED ON ASM FROM M5 TO CURRENT CODE 4 USED ON ASM PRIOR TO P5 SUFFIX CODE 5 USED ON ASM FROM P5 TO CURRENT CODE 6 USED ON ASM PRIOR TO E6 SUFFIX CODE 7 USED ON ASM FROM E6 TO CURRENT CODE 8 USED ON ASM PRIOR TO H6 SUFFIX CODE 9 USED ON ASM FROM H6 TO CURRENT	
-	2200012	CE BOX ASSEMBLY SEE FIGURE 17A FOR ILLUSTRATION	REF
- 1	2200014	. INDICATOR BOX ASSEMBLY SEE LIST 17B FOR DETAIL BREAKDOWN	1
- 2	2200013	. CE BOX ASSEMBLY, CONTROL UNIT	1
- 3	10170	. SCREW-MACH,BIND HD NO. 6-32 X .250 LG	16
- 4	56722	. WASHER,LOCK-EXT T .141 ID	3
- 5	117184	. SWITCH,PUSH-NC 125V AC 1 AMP	1
- 5	725570	. SWITCH,PUSHBUTTON-SPDT 0.2 AMPS 30 VDC	4
- 6	159373	. WASHER,LOCK-EXT TEETH 15/32 ID X 3/4 OD	5
- 7	216323	. NUT, STEEL, CHROMIUM,	1
- 7	179744	. NUT,PLAIN,RD- 15/32-32 X 39/64 DIA	1
- 8	257187	. MACHINE SCREW HEXAGON	3
- 9	302090	. CONNECTOR,RECP,ELEC- 24 FEMALE CONTACTS	1
- 10	302131	. STRIP-TERMINAL BLOCK INSULATOR	1
- 11	344015	. NUT,SELF LKG,HEX- 6-32 X 5/16 FL W	1
- 12	354167	. SWITCH, ROTARY, 1 DECK, 1 POLE, 7 POS.	2
- 12	2181235	. SWITCH,ROTARY, 1 DECK, 1 POLE, 7 POS.	6
- 12A	317173	. KNOB-BAR TYPE WITH POINTER	2
- 12B	179743	. NUT,PLAIN,HEX- 15/32-32 X 9/16 FL W	3
- 12C	358789	. RESISTOR ASSEMBLY	3
- 13	358844	. SWITCH,PUSH	3
- 14	369218	. SEMICONDUCTOR DEVICE, DIODE	1
		INDEX 15 DELETED	5
- 16	555049	. SWITCH,LEVER-SHRTNG 2P 3 POS	8
- 17	731626	. SCREW, PAN HEAD, 6-32 X .25 LONG	1
- 18	731627	. SCREW, PAN HEAD, 6-32 X .75 LONG	1
- 18	811426	. SCREW,MACH-PAN HD 6-32 X 3/8 IN. LG	2
- 18	811417	. SCREW,HEX SOCKET H- 6-32 X 1/2 LG	2
- 19	734878	. SWITCH, TOGGLE, SPDT, CENTER OFF	5
- 20	738826	. SWITCH, TOGGLE	1
- 20A	740550	. JUMPER ASSEMBLY	3
- 21	765748	. SWITCH, TOGGLE	1
- 21	734879	. SWITCH, TOGGLE, DPDT,	2
- 22	811363	. EXTENDER, CARD, 6 PAC	7
- 22	811363	. EXTENDER, CARD, 6 PAC	10
- 23	811426	. SCREW,MACH-PAN HD 6-32 X 3/8 IN. LG	6
- 23	811417	. SCREW,HEX SOCKET H- 6-32 X 1/2 LG	18
- 23A	2100873	. RESISTOR ASM	1
- 23B	811802	. GUIDE-CARD	2
- 23C	811802	. GUIDE-CARD	3
- 23D	813179	. CLAMP-BOARD	1
- 24	2180972	. CLAMP, PADDLE CONNECTOR, SLT	2
- 24A	2180973	. CLAMP, SLT CARD	5
- 25	2181005	. SCREW, SELF TAPPING, 6-32 X .375 LG.	1
- 25A	2181005	. SCREW, SELF TAPPING, 6-32 X .375 LG.	6
- 25A	81693	. SCREW,MACH-BIND HD 6-32 X 3/8 LG	7
- 26	2181101	. BRACKET, BOARD MOUNTING	7
- 26A	2181102	. PANEL, CE BOX	1
- 27	2181104	. CASE ASSEMBLY, CE BOX	1
- 27	2181141	. CASE ASSEMBLY-CE BOX	6
		INDEXES 28 THRU 30 DELETED	7
- 31	2181106	. PARTITION, CABLE	1
- 32	2181110	. BOARD ASSEMBLY	1
- 33	2181112	. CABLE ASSEMBLY, CE TEST BOX SEE LIST 19-3C, 4D, 7A, 7C, 17, 20, 58, 62 AND 73 FOR COMPONENT PARTS	1
- 34	2181113	. CABLE ASSEMBLY, CE BOX TO FILE SEE LIST 19-20, 55, 73, 74, 76 AND 77 FOR COMPONENT PARTS	8
- 34	2244951	. CABLE ASSEMBLY,CE BOX TO FILE	9
- 35	2181117	. JUMPER ASSEMBLY, 3-1/4 INCHES LONG	1
- 36	2181119	. SERIAL TAG, FILE TEST BOX	1
- 37	2181133	. FOAM, 9 X 6, .13 THICK	1
- 38	2191846	. SCREW-EDGE CONNECTOR MOUNTING	1
- 39	5353883	. INDICATOR ASSEMBLY,AMBER- 3 VOLT	1
- 40	5353887	. HOUSING, LAMP	9
- 41	5353889	. INDICATOR ASSEMBLY-3 VOLT	8
- 42	5700484	. SCREW, SELF TAPPING, 4-40 X .375 LG.	2

FOR PARTS  
NOT SHOWN  
SEE FIG. 17A

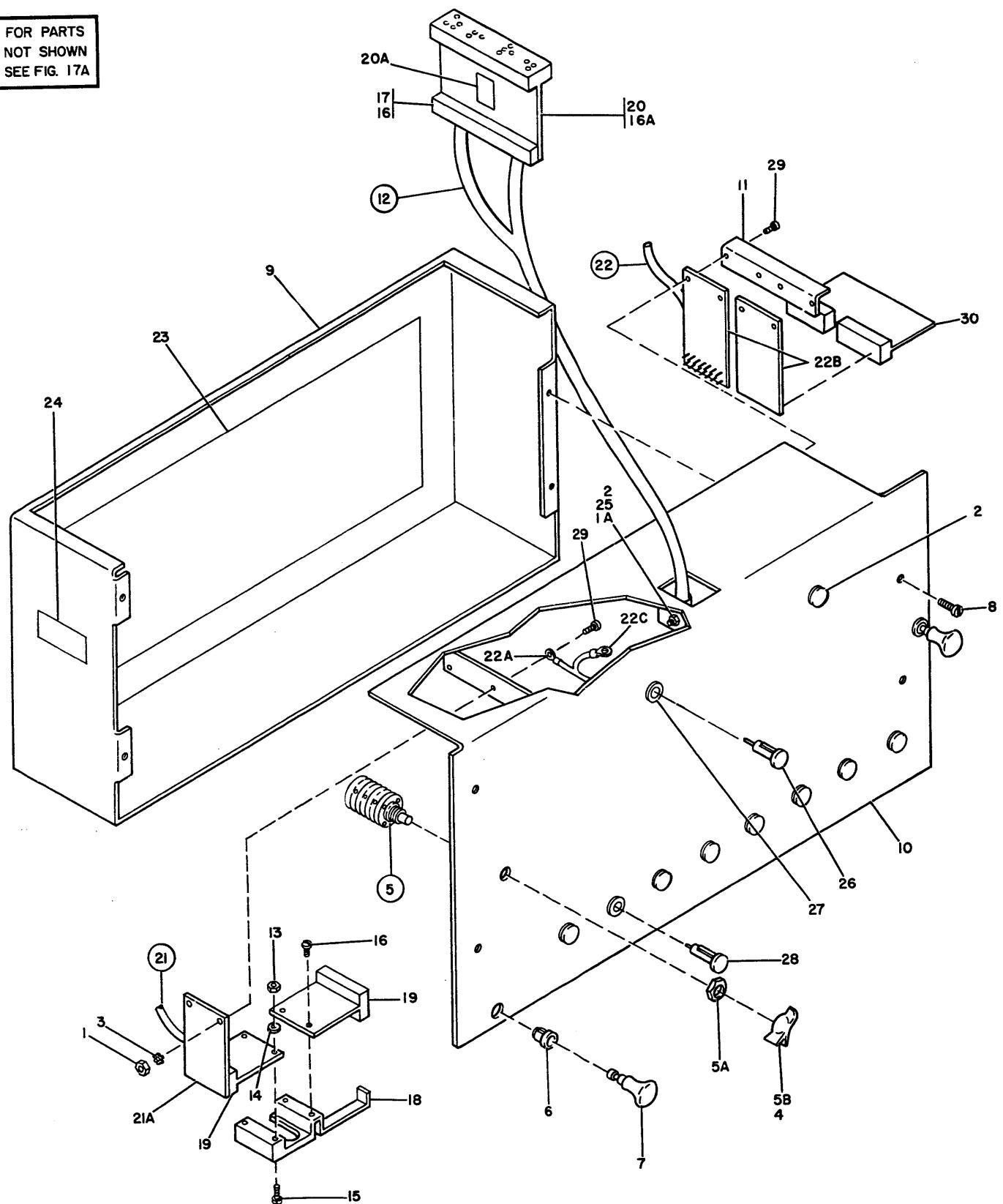


FIGURE 17B. INDICATOR BOX ASSEMBLY. SEE LIST 17B.

LIST AND INDEX NO.	PART NO.	1 2 3 4	DESCRIPTION	UNITS PER ASM.	USABLE ON CODE
			INDICATOR BOX ASSEMBLY.		
* 17B-			CODE 1 USED ON ASM PRIOR TO B6 SUFFIX CODE 2 USED ON ASM FROM B6 TO CURRENT CODE 3 USED ON ASM PRIOR TO E6 SUFFIX CODE 4 USED ON ASM FROM E6 TO CURRENT		
*	-	2200014	INDICATOR BOX ASSEMBLY SEE LIST 17-1 FOR NEXT HIGHER ASM. AND FIGURE 17B FOR ILLUSTRATION	REF	
*	- 1	37913	• NUT, HEX., 4-40 X 1/4 W	1	
*	- 1A	55901	• LOCKWASHER, EXTERNAL TOOTH	1	4
*	- 2	257189	• NUT, HEX., 8-32 X 0.3438 W	1	
*	- 3	338169	• WASHER,LOCK-EXT TEETH NO. 4 X 9/32 OD	1	
*	- 4	317173	• KNOB-BAR TYPE WITH POINTER	1	2
*	- 5	2181234	• SWITCH,ROTARY	1	2
*	- 5	539691	• SWITCH, 4 DECK, 16 POLE, 4 POSITION	1	1
*	- 5A	220032	• • NUT,PLAIN,HEX- 3/8-32 X 1/2 FL W	1	1
*	- 5B	300793	• • KNOB, SWITCH	1	1
*	- 6	2178596	• GROMMET, NYLATCH	2	
*	- 7	2178597	• PLUNGER, NYLATCH	2	
*	- 8	2181005	• SCREW, SELF TAPPING, 6-32 X .375 LG.	4	
*	- 9	2181100	• CHASSIS, INDICATOR BOX	1	
*	- 10	2181103	• PANEL, INDICATOR BOX	1	
*	- 11	2181107	• PLATE, SUPPORT	2	
*	- 12	2244948	• CABLE ASM.-CE BOX TO FILE BREAKDOWN NOT AVAILABLE	1	4
*	- 12	2181114	• CABLE ASSEMBLY, INDICATOR BOX TO FILE	1	3
*	- 13	37913	• • NUT, HEX., 4-40 X 1/4 W	2	
*	- 14	150209	• • LOCKWASHER	2	
*	- 15	438552	• • SCREW,MACH BINDING HD 4-40 X 3/4 LG	2	
*	- 16	595720	• • RIVET,ROLLED FLANGE	6	
*	- 16A	811804	• • GUIDE, CARD	1	
*	- 17	2180973	• • CLAMP, SLT CARD	2	
*	- 18	2181109	• • SUPPORT, CARD	1	
*	- 19	5800634	• • CARD ASSEMBLY, SLT	2	
*	- 20	5801246	• • CARD ASSEMBLY, SLT	1	
*	- 20A	2181094	• • LABEL,IDENTIFICATION	1	
*	- 21	2181115	• CABLE ASSY. SELECT SWITCH TO FILE CONN	1	
*	- 21A	812193	• • BOARD, ETCHED, RT. ANGLE CONNECTOR	1	
*	- 22	2181116	• CABLE ASSY. IND. BOX CARD TO LAMPS. SW.	1	
*	- 22A	253453	• • TERMINAL-RING,22-26 AWG,#6 HOLE,INS	1	
*	- 22B	812193	• • BOARD, ETCHED, RT. ANGLE CONNECTOR	2	
*	- 22C	5362301	• • TERMINAL	20	
*	- 23	2181129	• LABEL, INDICATOR BOX LOGIC	1	
*	- 24	2181132	• SERIAL TAG, INDICATOR BOX	1	
*	- 25	5319854	• SCREW, SELF TAPPING, 8-32 X .375 LONG	1	
*	- 26	5353883	• INDICATOR ASSEMBLY, AMBER, 3 VOLT	2	
*	- 27	5353887	• HOUSING, LAMP	10	
*	- 28	5353889	• LAMP, CLEAR	8	
*	- 29	5700484	• SCREW, SELF TAPPING, 4-40 X .375 LG.	6	
*	- 30	5801245	• CARD ASSEMBLY, SLT	1	

FOR PARTS  
NOT SHOWN  
SEE FIG. I

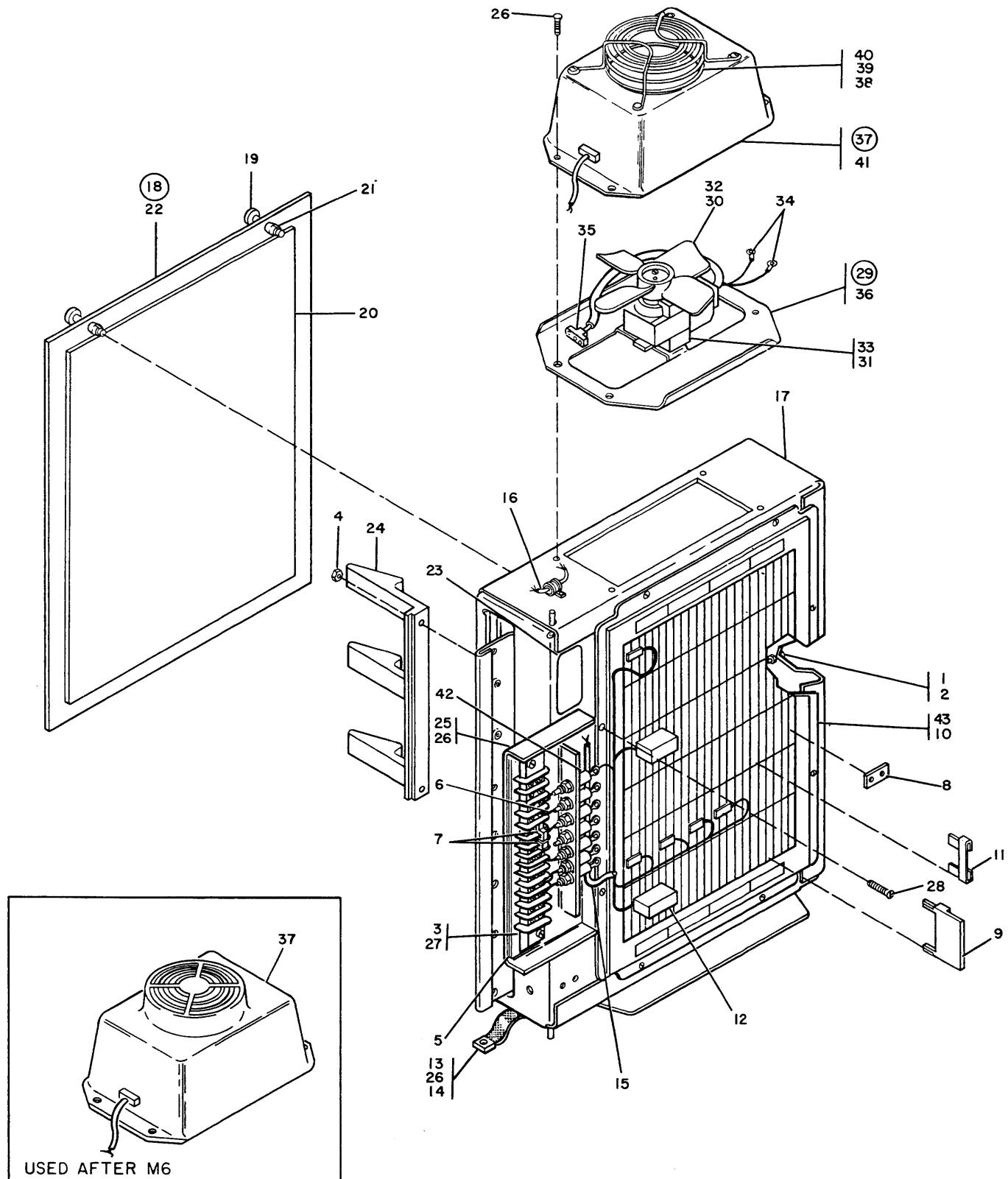


FIGURE 17C. GATE ASSEMBLY. SEE LIST 17C.

LIST AND INDEX NO.	PART NO.	1 2 3 4	DESCRIPTION	UNITS PER ASM.	USABLE ON CODE
			GATE ASSEMBLY		
* 17C-			CODE 1 USED ON ASM PRIOR TO S6 SUFFIX CODE 2 USED ON ASM FROM S6 TO CURRENT		
*			-		
*			GATE ASSEMBLY	REF	
*			USED ON MACHINES FROM A6 TO CURRENT SEE LIST 1- 61 FOR NEXT HIGHER ASM. AND FIGURE 17C FOR ILLUSTRATION		
*			.		
*	- 1	234318	SCREW,ASMD WASHER-FIL H 8-32 X 3/8 LG	1	
*	- 2	257189	NUT - HEX-8-32UNC THD	1	
*	- 3	320451	TERMINAL BOARD- 10 DBL SCREW TERMINALS	1	
*	- 4	344015	NUT,SELF LKG,HEX- 6-32 X 5/16 FL W	2	
*	- 5	550578	MARKER STRIP- 10 POS NOS. 1 THRU 10	1	
*	- 6	596481	JUMPER ASSEMBLY	7	
*	- 7	730468	JUMPER-TERMINAL STRIP	2	
*	- 8	811090	LOCATOR-OVAL	19	
*	- 9	811363	EXTENDER, CARD, 6 PAC	1	
*	- 10	811417	SCREW,HEX SOCKET H- 6-32 X 1/2 LG	6	
*	- 11	811804	GUIDE, CARD	16	
*	- 12	813197	HOUSING-TERMINAL	7	
*	- 13	2101089	STRAP,GROUND,518 X 7 IN.	1	
*	- 14	2125765	LOCKWASHER, DISHED	1	
*	- 15	2180683	CABLE ASSEMBLY, GATE DC JUMPER SEE LIST 19- 4, -29, -30, -65, -66 AND -66A FOR COMPONENT PARTS	1	
*	- 16	2180689	CABLE ASSEMBLY-GATE FAN SEE LIST 19- 5, -22, -23, -56 -56 FOR COMPONENT PARTS	1	
*	- 17	2180720	GATE WELDMENT ASSEMBLY	1	
*	- 18	2180744	COVER ASSEMBLY, GATE	1	
*	- 19	2178597	.		
*	- 20	2180727	PLUNGER, NYLATCH	2	
*	- 21	2180733	FOAM, 9 X 12, .13 THICK	1	
*	- 22	2180974	GROMMET, COVER LATCH	2	
*	- 23	2180797	COVER, SLT GATE	1	
*	- 24	2180972	DECAL, DC TB AND TEST POINTS	1	
*	- 25	2180993	CLAMP, PADDLE CONNECTOR, SLT	1	
*	- 26	2181005	BRACKET	1	
*	- 27	2181007	SCREW, SELF TAPPING, 6-32 X .375 LG.	9	
*	- 28	2181088	SCREW, SELF TAPPING, 6-32 X .625 LG.	2	
*	- 29	2181385	SCREW	2	
*	- 30	2863	SCREW, MACH-RH 3-48 X 0.250 LG	2	
*	- 31	32042	SCREW, MACH BIND. HD 10-32 X 3/8 LG.	2	
*	- 32	171485	BLADE,FAN	1	
*	- 33	172999	MOTOR- 230V AC	1	
*	- 34	609687	CONTACT	2	
*	- 35	725558	COVER-CONNECTOR	1	
*	- 36	2181398	PLATE-FAN	1	
*	- 37	2244018	HOUSING,FAN	1	2
*	- 37	2181399	HOUSING ASSEMBLY, FAN	1	1
*			FOLLOWING BREAKDOWN FOR ASM 2181399 ONLY		
*	- 38	72828	.		
*	- 38	45690	NUT,SELF LKG,HEX- 8-32 X 0.334 FL W	4	1
*	- 39	186758	WASHER, FL - NO.10 X 7/16 DD X 1/32 THK	4	2
*	- 39	2244021	SCREW,MACH-BIND HD 8-32 X 7/16 LG	4	1
*	- 40	597347	FASTENER,PUSH	4	2
*	- 41	2181331	GUARD	1	
*	- 42	2192509	HOUSING,FAN	1	
*	- 43	5811144	CAPACITOR,FXD-0.1 UF100V	7	
*			BOARD, SLT-01A-B1	1	

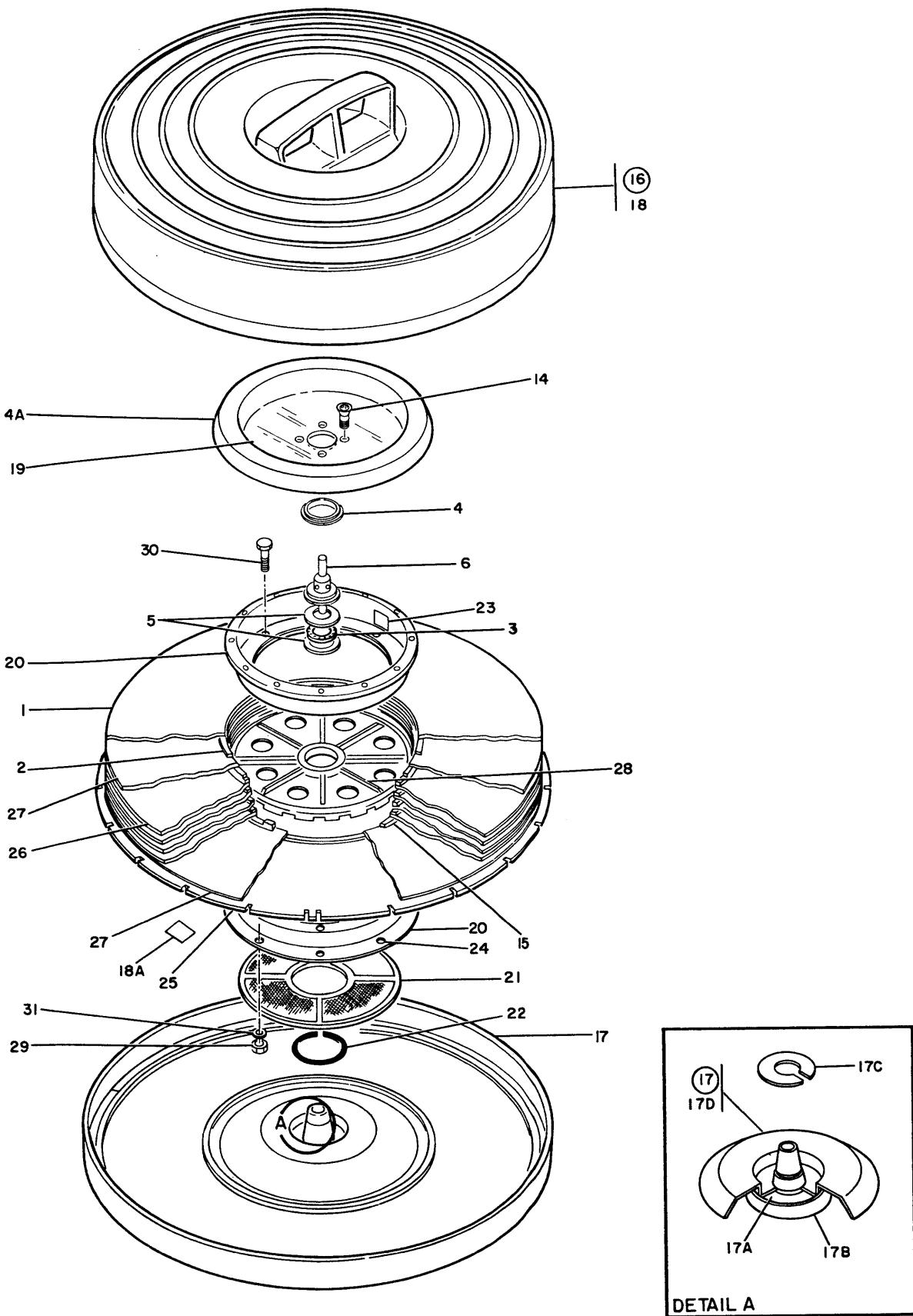


FIGURE 18. DISK PACK ASSEMBLY. SEE LIST 18.

LIST AND INDEX NO.	PART NO.	1 2 3 4	DESCRIPTION	UNITS PER ASM.	USABLE ON CODE
			DISK PACK ASM		
* 18 -			CODE A USED ON RED DISK PACK ASM - FROM F5 TO CURRENT CODE B USED ON YELLOW DISK PACK ASM CODE 1 USED ON ASM PRIOR TO L6 SUFFIX CODE 2 USED ON ASM FROM L6 TO CURRENT CODE 3 USED ON ASM PRIOR TO B7 SUFFIX CODE 4 USED ON ASM FROM B7 TO CURRENT -		
* -	2162852		PACK ASM, DISK SEE FIGURE 18 FOR ILLUSTRATION	REF	A
* -	2200018		PACK ASSEMBLY-DISK SEE FIGURE 18 FOR ILLUSTRATION	REF	B
- 1	2154061		• DISK, TOP COVER	□	1
- 2	2154069		• SHIM, DISK PACK	□	2
- 3	2154096		• BALL RETAINER	□	1
- 4	2154252		• BUSHING, DISK PACK SCREW	□	1
- 4A	2157651		• SHIELD, CE DISK PACK TRIM	□	1
- 4A	2218103		• SHIELD, DISK PACK TRIM-RED	□	1
- 4A	2162871		• SHIELD, DISK PACK TRIM-YELLOW	□	1
- 5	2160837		• WASHER, THRUST, 1.180 OD	□	B
- 5	2218117		• WASHER,THRUST	□	1
- 6	2160846		• SCREW ASSEMBLY, DISK PACK LOCKING PARTS OF THIS ASM ARE NOT REPLACEABLE	□	2
- 14	2160861		• SCREW, FLAT HD, 4-40 X 1/4 LG	□	1
- 14	251970		• SCREW-MACH BD. HD. 4-40 X 1/4 LG	□	2
- 15	2162559		• SPACER, DISK PACK	□	4
- 16	2162663		• COVER ASSEMBLY, DISK PACK	□	1
- 17	2157683		• • COVER ASSEMBLY, DISK PACK BOTTOM	□	3
- 17	2244031		• • COVER ASSEMBLY,DISK PACK TOP	□	4
- 17A	2157682		• • . WASHER,BEARING	□	4
- 17B	2244027		• • . KNOB	□	4
- 17C	2244028		• • . WASHER,RETAINING	□	4
- 17D	2244038		• • . COVER,DISK PACK,BOTTOM	□	4
- 18	2157684		• • . COVER ASSEMBLY, DISK PACK TOP	□	1
- 18A	2162691		• SERIAL PLATE, SALE	AR	A
- 18A	2162692		• SERIAL PLATE, LEASE	AR	A
- 18A	2162891		• SERIAL TAG,DISK PACK	AR	2A
- 18A	2157673		• SERIAL TAG, DISK PACK-CE SERIAL PLATES ARE NOT PART OF THIS ASSY. ORDER SEPARATELY, AS REQUIRED	AR	B
- 19	2162772		• DECAL, DISK PACK	□	1
- 20	2162836		• CLAMP, RING DRUM	□	2
- 21	2162837		• FILTER, DISK PACK	□	1
- 22	2162840		• O RING	□	1
- 23	2162841		• WEIGHT, BALANCE, DISK PACK	□	1
- 24	2162842		• TRIM BUTTON, DISK PACK	□	6
- 25	2162854		• DISK, SECTOR	□	1
- 26	2162857		• DISK, COATED, CENTER	□	4
- 27	2162858		• DISK, COATED, END	□	2
- 28	2162873		• HUB, DISK PACK	□	1
- 29	2180870		• NUT, SEMI-FINISHED HEXAGON, .25-20 LNC	□	6
- 30	2180871		• SCREW, HEX CAP. 25-20 X 1.125 LONG	□	6
- 31	2180872		• WASHER, .250 ID X .500 OD .400 THICK	□	6

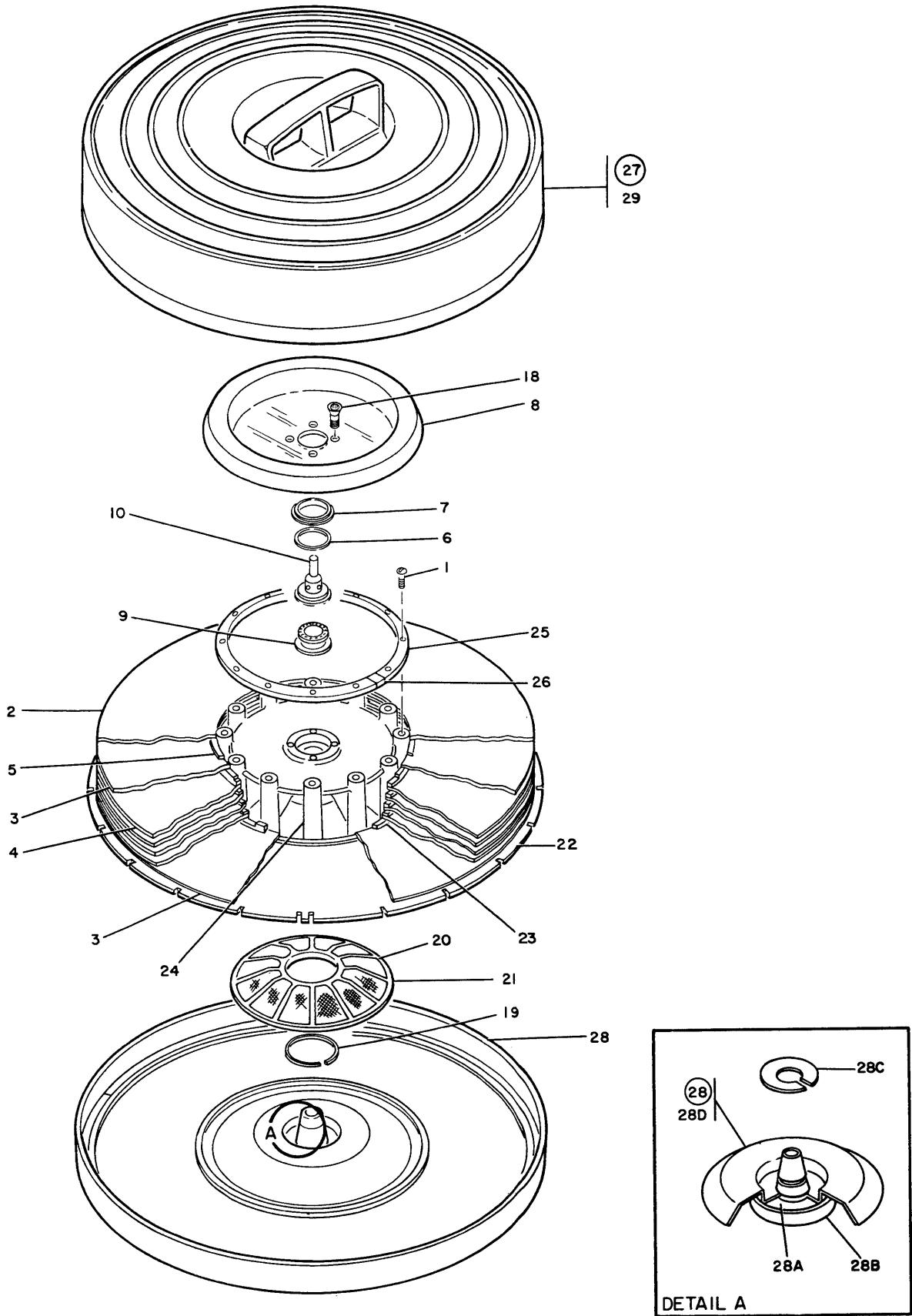


FIGURE 18A. DISK PACK ASSEMBLY. SEE LIST 18A.

LIST AND INDEX NO.	PART NO.	1 2 3 4	DESCRIPTION	UNITS PER ASM.	USABLE ON CODE
			DISK PACK ASSEMBLY		
* 18A-			CODE 1 USED ON ASM PRIOR TO B7 SUFFIX CODE 2 USED ON ASM FROM B7 TO CURRENT		
*			-		
*	- 2162601		PACK ASSEMBLY, DISK SEE FIGURE 18A FOR ILLUSTRATION	REF	
*	- 1 38575		. SCREW,MACH-RH 6-32 X 7/16 LG	12	
*	- 2 2154061		. DISK, TOP COVER	1	
*	- 3 2154063		. DISK, COATED END	2	
*	- 4 2154064		. DISK, COATED CENTER	4	
*	- 5 2154069		. SHIM, DISK PACK	2	
*	- 6 2154096		. BALL RETAINER	1	
*	- 7 2154252		. BUSHING, DISK PACK SCREW	1	
*	- 8 2157651		. SHIELD, DISK PACK TRIM-RED	1	
*	- 9 2160837		. WASHER, THRUST, 1.180 OD	1	
*	- 10 2160846		. SCREW ASSEMBLY, DISK PACK LOCKING PARTS OF THIS ASM ARE NOT REPLACEABLE	1	
*	- 18 2160861		. SCREW, FLAT HD, 4-40 X 1/4 LG	4	
*	- 19 2162529		. RING, RETAINING	1	
*	- 20 2162552		. ELEMENT, FILTER	1	
*	- 21 2162555		. RETAINER, FILTER	1	
*	- 22 2162558		. DISK, SECTOR	1	
*	- 23 2162559		. SPACER, DISK PACK	5	
*	- 24 2162560		. DRUM, DISK PACK	1	
*	- 25 2162563		. RING, DISK PACK	1	
*	- 26 2162597		. CLIP, DISK BALANCER	1	
*	- 27 2162663		. COVER ASSEMBLY, DISK PACK	1	
*	- 28 2157683		. . COVER ASSEMBLY, DISK PACK BOTTOM	1	
*	- 28 2244031		. . COVER ASSEMBLY,DISK PACK TOP	1	2
*	- 28A 2157682		. . . WASHER,BEARING	1	2
*	- 28B 2244027		. . . KNOB	1	2
*	- 28C 2244028		. . . WASHER,RETAINING	1	2
*	- 28D 2244038		. . . COVER,DISK PACK,BOTTOM	1	2
*	- 29 2157684		. . . COVER ASSEMBLY, DISK PACK TOP	1	


FIGURE 19. CABLE AND JUMPER ASSEMBLY COMPONENT PARTS. SHEET 1 OF 3. SEE LIST 19.

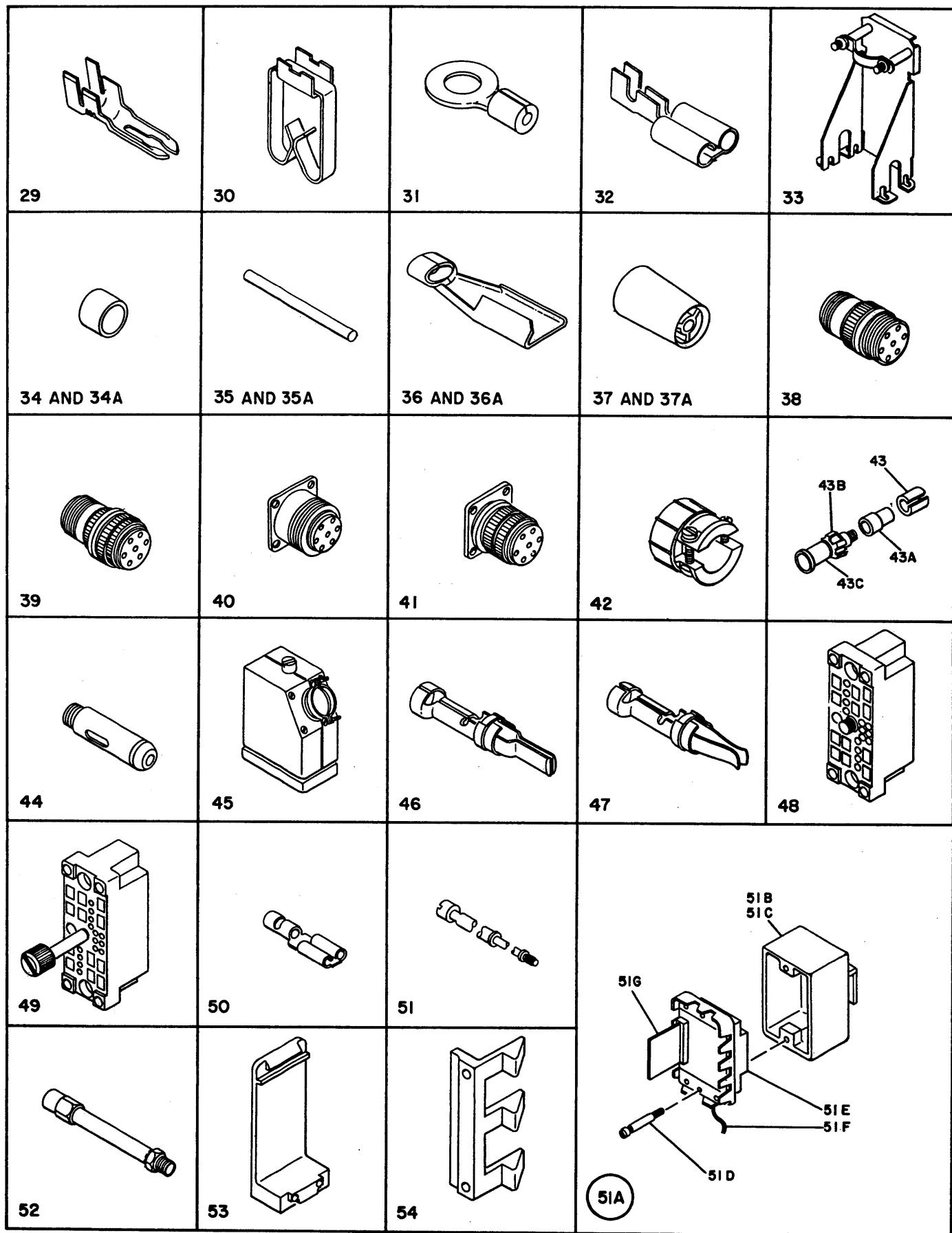


FIGURE 19. CABLE AND JUMPER ASSEMBLY COMPONENT PARTS. SHEET 2 OF 3. SEE LIST 19.

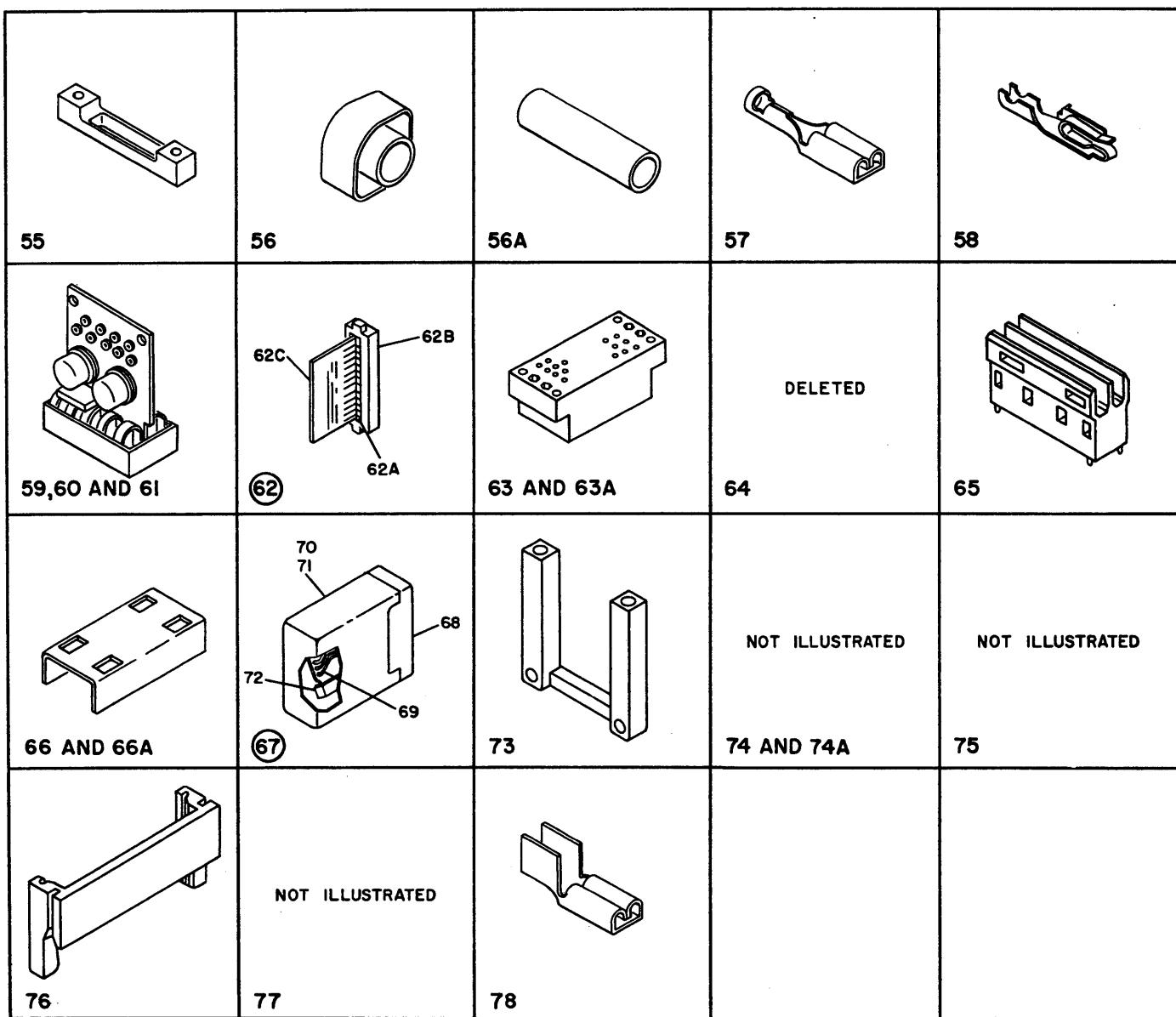


FIGURE 19. CABLE AND JUMPER ASSEMBLY COMPONENT PARTS. SHEET 3 OF 3. SEE LIST 19.

LIST AND INDEX NO.	PART NO.	DESCRIPTION				UNITS PER ASM.	USABLE ON CODE
		1	2	3	4		
CABLE AND JUMPER ASSEMBLY COMPONENT PARTS							
* 19 -	NO NO.						REF
		COMPONENT PARTS,CABLE AND JUMPER ASM. SEE FIGURE 19 FOR ILLUSTRATION					
- 1	357433	• CLAMP, CABLE-.187 DIAMETER					AR
- 1	356742	• CLAMP, CABLE-.250 DIAMETER					AR
- 1	2102364	• CLAMP, CABLE-.220 TO .270 DIA.					AR
- 1	2102365	• CLAMP, CABLE-.330 TO .420 DIA.					AR
- 1	350663	• CLAMP, CABLE-.440 DIAMETER					AR
- 1	2102366	• CLAMP, CABLE-.470 TO .520 DIA.					AR
- 1	350664	• CLAMP, CABLE-.560 DIAMETER					AR
- 1	2114108	• CABLE, .0562 DIAMETER					AR
- 1	327922	• CLAMP,CABLE					AR
- 1	2114056	• CLAMP, CABLE-.688 DIAMETER					AR
- 1	2102367	• CLAMP, CABLE-.700 TO .780 DIA.					AR
- 1	327923	• CLAMP, CABLE-.875 DIAMETER					AR
- 1	2102368	• CLAMP, CABLE-.880 TO 1.060 DIA.					AR
- 1	2102370	• CLAMP, CABLE-2.050 DIAMETER					AR
- 1	2102369	• CLAMP, CABLE-1.230 TO 1.550 DIA.					AR

LIST AND INDEX NO.	PART NO.	1 2 3 4	DESCRIPTION	UNITS PER ASM.	USABLE ON CODE
CABLE AND JUMPER ASSEMBLY COMPONENT PARTS -CONT					
19 - 2	2162901		• CLAMP, BLACK, BLACK-FASTENER, 1/4 DIA.	AR	
- 2	2162902		• CLAMP, BLACK, BLACK-FASTENER, 5/16 DIA.	AR	
- 2	2162903		• CLAMP, BLACK, BLACK-FASTENER, 3/8 DIA.	AR	
- 2	2162904		• CLAMP, BLACK, BLACK-FASTENER, 7/16 DIA.	AR	
- 2	2162905		• CLAMP, BLACK, BLACK-FASTENER, 1/2 DIA.	AR	
- 2	2162906		• CLAMP, BLACK, BLACK-FASTENER, 9/16 DIA.	AR	
- 2	2162907		• CLAMP, BLACK, BLACK-FASTENER, 5/8 DIA.	AR	
- 2	2162908		• CLAMP, BLACK, BLACK-FASTENER, 11/16 DIA.	AR	
- 2	2162909		• CLAMP, BLACK, BLACK-FASTENER, 3/4 DIA.	AR	
- 2	2162910		• CLAMP, BLACK, BLACK-FASTENER, 13/16 DIA.	AR	
- 2	2162911		• CLAMP, BLACK, BLACK-FASTENER, 7/8 DIA.	AR	
- 2	2162912		• CLAMP, BLACK, BLACK-FASTENER, 1.00 DIA.	AR	
- 2	2162913		• CLAMP, BLACK, BLACK-FASTENER, 1-1/8 DIA.	AR	
- 2	2162914		• CLAMP, BLACK, BLACK-FASTENER, 1-3/16 DIA	AR	
- 2	2162915		• CLAMP, BLACK, BLACK-FASTENER, 1-1/4 DIA.	AR	
- 2	2162916		• CLAMP, BLACK, BLACK-FASTENER, 1-3/8 DIA.	AR	
- 2	2162917		• CLAMP, BLACK, BLACK-FASTENER, 1-1/2 DIA.	AR	
- 2	2162918		• CLAMP, BLACK, WHITE-FASTENER, 1/4 DIA.	AR	
- 2	2162919		• CLAMP, BLACK, WHITE-FASTENER, 5/16 DIA.	AR	
- 2	2162920		• CLAMP, BLACK, WHITE-FASTENER, 3/8 DIA.	AR	
- 2	2162921		• CLAMP, BLACK, WHITE-FASTENER, 7/16 DIA.	AR	
- 2	2162922		• CLAMP, BLACK, WHITE-FASTENER, 1/2 DIA.	AR	
- 2	2162923		• CLAMP, BLACK, WHITE-FASTENER, 9/16 DIA.	AR	
- 2	2162924		• CLAMP, BLACK, WHITE-FASTENER, 5/8 DIA.	AR	
- 2	2162925		• CLAMP, BLACK, WHITE-FASTENER, 11/16 DIA.	AR	
- 2	2162926		• CLAMP, BLACK, WHITE-FASTENER, 3/4 DIA.	AR	
- 2	2162927		• CLAMP, BLACK, WHITE-FASTENER, 13/16 DIA.	AR	
- 2	2162928		• CLAMP, BLACK, WHITE-FASTENER, 7/8 DIA.	AR	
- 2	2162929		• CLAMP, BLACK, WHITE-FASTENER, 1.00 DIA.	AR	
- 2	2162930		• CLAMP, BLACK, WHITE-FASTENER, 1-1/8 DIA.	AR	
- 2	2162931		• CLAMP, BLACK, WHITE-FASTENER, 1-3/16 DIA	AR	
- 2	2162932		• CLAMP, BLACK, WHITE-FASTENER, 1-1/4 DIA.	AR	
- 2	2162933		• CLAMP, BLACK, WHITE-FASTENER, 1-3/8 DIA.	AR	
- 2	2162934		• CLAMP, BLACK, WHITE FASTENER, 1-1/2 DIA.	AR	
- 3	186968		• TERMINAL,LUG	AR	
- 3A	253453		• TERMINAL,RING TONGUE	AR	
- 3B	334910		• TERMINAL,LUG-14-16 AWG NO. 6 MTG HOLE	AR	
- 3C	334921		• TERMINAL,LUG-16-22 AWG NO. 6 MTG HOLE	AR	
- 3D	334932		• TERMINAL,LUG 16-22 AWG NO. 10	AR	
- 3E	360370		• TERMINAL,LUG-14-16 AWG NO. 8 MTG HOLE	AR	
- 4	92784		• TERMINAL, LUG	AR	
- 4A	253740		• TERMINAL,LUG-INSULATED NO. 6 MTG HOLE	AR	
- 4B	2101326		• TERMINAL,LUG- 10-12 AWG NO. 10 MTG HOLE	AR	
- 4C	2101327		• TERMINAL,INSULATED	AR	
- 4D	236915		• TERMINAL,CONTACT FEMALE 20-18 AWG	AR	
- 5	92786		• TERMINAL,LUG	AR	
- 5A	255994		• TERMINAL-SPADE 16-20 AWG	AR	
- 5B	368222		• TERMINAL,NO. 8 STUD 16-14 WIRE	AR	
- 5C	603152		• TERMINAL	AR	
- 5D	1119009		• LUG, TERMINAL	AR	
- 6	186963		• TERMINAL,	AR	
- 6A	186965		• TERMINAL, LUG-SPADE	AR	
- 6B	186967		• TERMINAL,LUG- 20-26 AWG NO. 6 MTG SLOT	AR	
- 6C	187460		• TERMINAL, LUG, 20,22,24 AWG-NO.8 HOLE	AR	
- 6D	313361		• TERMINAL,LUG- 20-24 AWG NO. 4 MTG SLOT	AR	
- 7	135052		• TERMINAL, TAPERED	AR	
- 7A	187243		• CONNECTOR, TAPERED, 20 AWG WIRE	AR	
- 7B	320167		• CONNECTOR, TAPERED	AR	
- 7C	360433		• CONNECTOR, TAPERED, 16 OR 18 AWG WIRE	AR	
- 7D	600844		• TERMINAL, SMALL TAPER, 55-24 AWG	AR	
- 8	1142155		• TERMINAL, CRIMP, 22-24 AWG	AR	
- 8A	2114531		• TERMINAL	AR	
- 9	598041		• CONTACT	AR	
- 9A	631644		• CONTACT, DUAL MINIATURE, 24-26 AWG	AR	
- 9B	736547		• CONTACT, MINIATURE DUAL, 20-22 AWG	AR	
- 10	2122258		• PIN, CONTACT	AR	
- 10A	2122260		• PIN, CONTACT LONG	AR	
- 10B	2127867		• PIN-CONTACT	AR	
- 11	2122259		• SOCKET, CONTACT, 20 OR 22 AWG WIRE	AR	
- 11A	2122261		• SOCKET, CONTACT, 16 OR 18 AWG WIRE	AR	
- 11B	2127890		• SOCKET, CONTACT, 24-26 AWG	AR	
- 12	37913		• NUT, HEX., 4-40 X 1/4 W	AR	
- 13	38264		• SCREW,MACH-FIL H 4-40 X 3/8 LG	AR	
- 13A	38354		• SCREW,MACH-FIL H 6-32 X 1/2 LG	AR	
- 13B	205652		• SCREW,MACH-FIL H 2-56 X 5/8 LG	AR	
- 13C	438552		• SCREW,MACH BINDING HD 4-40 X 3/4 LG	AR	
- 13D	438549		• SCREW,MACH-BIND HD 4-40 X 7/16 LG	AR	

CABLE AND JUMPER ASSEMBLY COMPONENT PARTS -CONT		
- 14	138281	• WASHER,.125 I.D.-5/16 O.D.X .062 THICK
- 15	150209	• LOCKWASHER
- 15A	257985	• WASHER, FLAT, 1/8 ID X 1/4 OD
- 16	55901	• WASHER,LOCK-EXT TEETH NO. 8 X 0.381 OD
- 16A	338169	• WASHER,LOCK-EXT TEETH NO. 4 X 9/32 OD
- 17	236916	• TERMINAL, 22-24 AWG
- 17A	339156	• CLIP,TERMINAL
- 17B	523181	• TERMINAL,QUICK DISCONNECT- 18/22AWG
- 18	359695	• TERMINAL,LUG-14-16 AWG NO. 10 MTG HOLE
- 18A	317399	• LUG, TERMINAL, 90 DEGREE ANGLE
- 19	517913	• CLIP
- 20	595720	• RIVET,ROLLED FLANGE
- 21	550501	• RECEPTACLE-TAPER PIN
- 21A	591649	• TERMINATION,COAXIAL
- 22	609687	• CONTACT
- 23	725557	• PLUG, CONNECTOR, 3 CIRCUIT
- 24	725558	• CONNECTOR
- 25	738843	• HOUSING, CONNECTOR, 132 POSITION, MALE
- 26	738844	• HOUSING, CONNECTOR, 132 POSITION, FEMALE
- 27	744606	• JACKSCREW, 6-32 X 1.333 LONG
- 28	812193	• BOARD, ETCHED, RT. ANGLE CONNECTOR
- 29	813195	• TERMINAL, DISCRETE WIRE, 22-26 AWG
- 30	813681	• CONTACT, MINIATURE BUS
- 31	1092019	• TERMINAL,RING .145 MOUNTING HOLE
- 32	2123393	• TERMINAL
- 33	2127857	• CLAMP, STRAIN RELIEF, 104 POSITION
- 34	2152788	• FERRULE,.453 OUTSIDE AND .400 INSIDE DIA
- 34A	2152789	• FERRULE,.337 OUTSIDE AND .297 INSIDE DIA
- 35	2154243	• CONTACT, SINGLE WIRE
- 35A	2154357	• CONNECTOR, MINIATURE, 5-PIN FEMALE
- 36	2154868	• CONNECTOR, GOLD,W/O DIMPLES,20-22 WIRE
- 36A	2154888	• CONNECTOR, GOLD,WITH DIMPLES,20-22 WIRE
- 37	2178469	• FERRULE, SHIELDED WIRE, .150 ID
- 37A	2178470	• SLEEVE, INSULATING
- 38	2180659	• CONNECTOR, CABLE, 7 POSITION, FEMALE
- 39	2180660	• PLUG, STRAIGHT, 7 POSITION, MALE
- 40	2180661	• RECEPTACLE, CABLE, 7 POSITION, FEMALE
- 41	2180662	• PLUG, BOX TYPE, 7 POSITION, MALE
- 42	2180663	• CLAMP, CABLE
- 43	2180664	• BUSHING, ALIGNMENT, COAX CONNECTOR
- 43A	2180665	• FERRULE, COAX CONNECTOR
- 43B	2180666	• SPRING, RETENTION, COAX CONNECTOR
- 43C	218C667	• SOCKET, COAX CONNECTOR
- 44	218C668	• PIN, COAX CONNECTOR
- 45	2180669	• CONNECTOR, 30 POSITION, POWER
- 46	2180670	• TERMINAL, MALE
- 47	2180671	• TERMINAL, FEMALE
- 48	2180672	• BLOCK, RECEPTACLE, 29 POSITION
- 49	2180673	• BLOCK, PLUG, 29 POSITIONS
- 51	2180716	• JACKSCREW, MALE, 8-32
- 51A	2180746	• PLUG ASSEMBLY, TERMINATOR
- 51B	170225	• SCREW, LOCKWASHER AND, 6-32 X .438 LG
- 51C	2122627	• SHIELD ASSY
- 51D	738842	• JACKSCREW, LONG
- 51E	738843	• HOUSING, CONNECTOR, 132 POSITION, MALE
- 51F	2180747	• JUMPER ASSEMBLY, 1.50 LONG
- 51G	5800736	• TERMINATOR, LINE
- 52	2180796	• JACKSCREW, FIXED
- 53	2180914	• RETAINER,
- 54	2180972	• CLAMP, PADDLE CONNECTOR, SLT
- 55	2180973	• CLAMP, SLT CARD
- 56	2184182	• FERRULE, SHIELDED WIRE
- 56A	2184183	• SLEEVE, INSULATING
- 57	5213274	• TERMINAL, QUICK DISCONNECT, 18-22 AWG
- 58	5362301	• CONTACT, LARGE SERPENT, 20-24 AWG
- 59	5805007	• CARD ASSEMBLY, INDEX PREAMP
- 60	5805008	• CONNECTOR, CYLINDER PREAMP
- 61	5805009	• CONNECTOR, DETENT PREAMP
- 62	5800610	• CARD ASSEMBLY, SIGNAL TERMINATOR
- 62A	811300	• CONTACT, SIGNAL TERMINATOR CARD
- 62B	811304	• HOUSING, CONTACT
- 62C	811715	• CARD, SIGNAL TERMINATOR
- 63	2127854	• CONNECTOR,PLUG,ELEC-75 MALE CONTACTS
- 63A	2127855	• CONNECTOR,RECP,ELEC-MINI 75 FEMALE CONT INDEX 64 DELETED
- 65	813801	• HOUSING
- 66	813802	• COVER
- 66A	811494	• COVER- 4 PIN BLK FOR HOUSING P/N 811486
- 67	2181201	• PLUG ASSEMBLY-TERMINATOR
- 68	2127854	• CONNECTOR,PLUG,ELEC-75 MALE CONTACTS
- 69	2181202	• JUMPER ASSEMBLY
- 70	2181203	• HOUSING-TERMINAL PLUG
- 71	2181211	• SCREW
- 72	5800736	• TERMINATOR, LINE
- 73	5352960	• STRAIN RELIEF COAX FOR TWO-HI APPLICATION
- 74	2181266	• LABEL
- 74A	5393130	• LABEL
- 75	2178526	• TERMINAL
- 76	811804	• GUIDE, CARD
- 77	5819436	• CARD, CONNECTOR
- 78	430799	• TERMINAL,QUICK DISCONNECT

# NUMERICAL INDEX

PART NO.	LIST AND INDEX NO.	PART NO.	LIST AND INDEX NO.	PART NO.	LIST AND INDEX NO.
337	10 - 26A	37913	9 - 7	62031-CONT	5 - 77D
453	5 - 1		9 - 26	72828	2 - 3A
	5 - 1A		16 - 7		17C- 38
	14 - 1		5A- 3		14 - 9
845	5 - 1B		17B- 1		1 - 9
1974	5 - 56		17B- 13		1 - 10
	5A- 1		19 - 12		6 - 1
2863	17 - 1	38051	9 - 40		8 - 1A
	17C- 30	38235	1 - 3		11 - 50
3550	5 - 1C		4 - 1		11 - 58
	9 - 3		4A- 1		11 - 62
	14 - 2		5 - 5		17 - 14A
3960	2 - 1		9 - 2		17A- 25A
	14 - 3		16 - 8		16 - 18
4327	6 - 47A	38264	1 - 4		19 - 4
4564	5 - 1D		16 - 4A		19 - 5
	14 - 4		19 - 13	101706	5 - 7
5528	5 - 2	38354	1 - 4A	104615	16 - 19
	5 - 135A		16 - 8A	104706	5 - 8
	9 - 1		19 - 13A	107668	16 - 20
6364	9 - 39	38442	10 - 1	111229	1 - 11
9092	6 - 1A	38443	1 - 5	111257	16 - 20A
10170	1 - 1	38575	18A- 1	117184	17A- 5
	1 - 1A	38686	1 - 67A	120789	9 - 3
	1 - 1A	45690	2A- 1	122639	1 - 110
	1 - 1B		6 - 1A		- 1
	2 - 2		16 - 9	122740	5 - 9
	5 - 3		17C- 38	124440	11 - 28
	5 - 3	48594	10 - 2	124631	1 - 110
	8 - 1		11 - 2		- 1
	8 - 1	54291	16 - 10	125930	2 - 4
	11 - 1	55726	1 - 6		2A- 2
	16 - 1		5 - 6	129243	16 - 21
	17A- 3		16 - 11		16 - 21
10309	14 - 5	55901	1 - 6A	129654	5 - 7
11598	1 - 104		4 - 2		5 - 135B
	12 - 1		4A- 2	135052	19 - 7
15544	5 - 4		16 - 12	138281	19 - 14
19852	5 - 4A		16 - 12A	138755	14 - 10
22478	2 - 2A		16 - 12B		16 - 22
	16 - 2		17B- 1A	139395	14 - 11
25627	1 - 2A		19 - 16	150209	5 - 9A
	14 - 6	55918	2A- 9		17B- 14
	16 - 3		2A- 9		19 - 15
	16 - 3A	56079	1 - 6B	151598	14 - 12
	16 - 4		16 - 13		16 - 23
25793	1 - 2	56121	1 - 106	159373	17A- 6
28413	1 - 94		16 - 14	169733	5 - 10
	16 - 5	56722	1 - 7	170150	5A- 4
	16 - 5A		14 - 8	170176	5 - 73
	16 - 31A		16 - 15	170185	5 - 11
32042	17 - 2		17 - 3	170215	5 - 12
	17C- 31		17A- 4	170225	19 - 51B
32617	1 - 105	58207	4 - 3	170530	5 - 15
34512	1 - 2B		4A- 3	171485	17 - 4
	7 - 1		16 - 4		17C- 32
	14 - 7		16 - 17	172999	17 - 5
	16 - 6		16 - 17A		17C- 33
	16 - 6A	59647	2 - 3	179743	17A- 12B
35739	5A- 2	62031	1 - 8	179744	17A- 7

PART NO.	LIST AND INDEX NO.	PART NO.	LIST AND INDEX NO.	PART NO.	LIST AND INDEX NO.
179946	16 - 24	253740	19 - 4A	323840	5A- 6
179966	14 - 13	255886	10 - 5	323845	16 - 50
180528	1 - 110	255994	19 - 5A	327922	19 - 1
	0 - 1	257187	4 - 5	327923	19 - 1
186758	11 - 51		5 - 77E	328602	16 - 51
	17C- 39		6 - 48	332620	2A- 3
186842	5 - 57	257189	17A- 8		2A- 3
	5A- 5		3 - 1		2A- 3
186923	11 - 52		4A- 5		2A- 3
186927	1 - 13		12 - 2	334910	5 - 22
186934	6 - 2		16 - 33	334921	19 - 38
186950	1 - 67B		17 - 8	334932	19 - 3C
186963	19 - 6		17B- 2	335329	19 - 3D
186965	19 - 6A	257958	17C- 2	338169	16 - 118
186967	19 - 68		1 - 18	338238	17B- 3
186968	19 - 3		8 - 2A	338320	19 - 16A
187243	19 - 7A	257971	5 - 107		5 - 23
187460	19 - 6C	257982	2 - 6	339156	16 - 99B
187491	1 - 14	257983	1 - 19	344015	19 - 17A
	1 - 14		5 - 19		2 - 4A
205331	16 - 26	257985	5 - 19A		2 - 7
	16 - 26		16 - 34		17 - 10
	16 - 26		19 - 15A		17A- 11
205652	19 - 138	257986	1 - 20		17C- 4
207353	16 - 27		5 - 20	350428	13 - 5A
210984	1 - 15		6 - 3	350559	16 - 51A
	1 - 15		10 - 6	350663	19 - 1
213536	4 - 4	285955	16 - 111	350664	19 - 1
	4A- 4	286531	16 - 116	354167	17A- 12
216184	0 - 1	300793	17B- 5B	355343	10 - 8
216323	17A- 7	302090	16 - 35	356742	19 - 1
216432	15 - 1	302131	17A- 9	357419	6 - 49
216442	13 - 1	303549	17A- 10	357433	19 - 1
216452	13 - 2	304477	16 - 36	357995	16 - 59
216455	15 - 1A	304479	16 - 37	358789	17A- 12C
	15 - 1A	308704	16 - 38	358844	17A- 13
216460	15 - 1A	311540	16 - 39	359018	16 - 52
216461	15 - 2		16 - 40	359044	1 - 22A
216466	13 - 3		16 - 40A		5 - 23A
216468	15 - 1	313361	19 - 60	359511	16 - 53
	15 - 1A	314372	12 - 3		16 - 54
216472	3 - 3A	316455	4A- 6	359695	19 - 18
	13 - 3A	316807	7 - 2A	360339	16 - 55
216474	13 - 4	316996	16 - 41	360370	19 - 3E
216480	15 - 3	317006	16 - 72	360433	19 - 7C
216481	13 - 5	317008	16 - 100A	360831	16 - 56
217019	16 - 28	317015	16 - 155	361479	13 - 6
220032	17B- 5A	317077	16 - 120	361497	13 - 7
220278	16 - 29	317082	16 - 96A	362915	1 - 23
220546	4A- 4A	317145	16 - 42		16 - 56A
221110	16 - 30	317173	17A- 12A	368222	19 - 58
221790	1 - 16		17B- 4	369113	15 - 13
231658	1 - 17	317193	16 - 43	369203	13 - 8
233355	9 - 14	317248	16 - 92A	369207	1 - 24
	9 - 33	317279	16 - 44		5 - 24
234318	10 - 3	317399	19 - 18A		14 - 14
	17 - 7	317430	16 - 104		16 - 57
	17C- 1	317464	5 - 21		16 - 57A
234319	5 - 14	319985	16 - 45		17A- 14
234345	5 - 15	320167	19 - 78	369218	13 - 9
234349	5 - 16	320451	17 - 9	369599	13 - 9
236529	5 - 17		17C- 3		15 - 4
236550	5 - 18	320610	4 - 6	372688	1 - 25
236849	16 - 5A	321271	16 - 90		16 - 58
	16 - 31	322065	6 - 4		16 - 59
	16 - 31A		8 - 3	418835	16 - 59
236915	19 - 40		9 - 4		16 - 59
236916	19 - 17		11 - 53	419131	16 - 67
237245	8 - 2		16 - 45A	430799	19 - 78
241927	16 - 81B	322289	16 - 46	437131	11 - 12
251446	2 - 5	322550	1 - 21	438543	10 - 9
251970	5 - 18A		6 - 4A	438548	5A- 7
	10 - 4		10 - 7		11 - 3
	11 - 3		16 - 47	438549	11 - 3
	16 - 32	322552	1 - 22		11 - 5
	18 - 14		5 - 77F	438550	19 - 13D
251989	11 - 4	322562	6 - 2		5 - 25
253453	17B- 22A	322739	16 - 48	438550	16 - 60
	19 - 3A	322792	16 - 49		

PART NO.	LIST AND INDEX NO.	PART NO.	LIST AND INDEX NO.	PART NO.	LIST AND INDEX NO.
438551	5A- 8 8 - 4 12 - 4	725558-CONT	17 - 13 17C- 35 19 - 24	1073418-CONT	9 - 8 9 - 27
438552	5 - 58 17B- 15 19 - 13C	725570	17A- 5 16 - 82 17 - 14	1077739	11 - 6 11 - 13
438567	16 - 61	730468	17C- 7	1090873	5 - 26 3 - 2
438568	6 - 5 16 - 61	731626	17A- 17	1092019	5 - 26A 19 - 31
438571	16 - 62	731627	17A- 18	1092125	5 - 27
438573	2 - 8	734878	17A- 19	1115633	12 - 5 6 - 6
438582	16 - 63	734879	1 - 26A 4A- 7 4A- 7	1119009	19 - 5D
438588	16 - 64	736547	17A- 21	1124682	8 - 5
438589	16 - 64	738826	19 - 98 4 - 9	1142155	19 - 8 16 - 88
438891	16 - 64A	738842	17A- 20	1143227	16 - 88
441218	11 - 24	738843	19 - 51D 19 - 25	2100873	17A- 23A
442958	16 - 65	738844	19 - 51E	2101089	17 - 17
472179	16 - 65A	740490	19 - 26	2101326	17C- 13 19 - 4B
472187	16 - 66	740493	1 - 27	2101327	19 - 4C
	16 - 88	740503	4 - 25	2101569	4 - 12
473582	16 - 67	740550	4A- 24	2102160	16 - 54A
473629	4 - 7	740608	1 - 28	2102364	19 - 1
480612	16 - 68	741349	16 - 83	2102365	19 - 1
483070	15 - 5	744606	4 - 10	2102366	19 - 1
483224	15 - 6	760521	4A- 8	2102367	19 - 1
	15 - 6	765748	1 - 29	2102368	19 - 1
491228	13 - 10	801620	16 - 84	2102369	19 - 1
491292	16 - 150	801645	17A- 20A	2102374	19 - 1 4 - 13
492551	15 - 6	803278	4 - 10		16 - 94
504698	16 - 69	811090	4A- 8		4A- 11
507144	16 - 70	811300	4A- 9	2102625	16 - 102
509772	1 - 94	811304	19 - 84	2102710	16 - 89
509968	16 - 71	811363	1 - 29	2103070	16 - 91
512426	5A- 9	811417	16 - 85	2103102	16 - 92
517913	19 - 19	811426	16 - 86	2103416	16 - 93
521695	16 - 73	811494	16 - 87		4 - 14
523181	19 - 17B	811715	17C- 8		11 - 29
524928	16 - 74	811802	2103552		16 - 94
526378	16 - 75	811804	17A- 22		16 - 95
535299	16 - 80	811839	17C- 9		16 - 96
539691	17B- 5	812193	17 - 31A		1 - 95
550050	13 - 12	813179	17A- 18		1 - 96
550501	19 - 21	813195	17A- 23		1 - 97
550578	17 - 11	813197	19 - 18		16 - 109
	17C- 5	813621	17A- 23		5A- 13
555049	17A- 16	813681	17A- 18		16 - 81B
561509	16 - 75A	813801	17A- 23		16 - 97
589768	16 - 76	813802	17C- 10		19 - 1
591649	19 - 21A	813804	17A- 18		19 - 1
595261	16 - 107	811426	17A- 23		16 - 98
595720	17B- 16	811494	19 - 66A		2114480
	19 - 20	811715	19 - 62C		16 - 99
596481	17 - 11A	811802	17A- 23B		2114481
	17C- 6	811804	17A- 23C		16 - 99C
597044	10 - 10	811839	19 - 62B		16 - 99D
597215	16 - 77	812193	17B- 21A		19 - 8A
597347	17C- 40	813179	17B- 22B		2114531
598041	19 - 9	813195	19 - 28		2119605
598479	16 - 78	813197	17A- 23D		4 - 15
600844	19 - 7D	813621	17C- 11		2121358
601093	1 - 25A	813681	19 - 76		6 - 11
601365	1 - 26	813801	15 - 8		2121517
602857	19 - 3F	813802	17B- 21A		6 - 34
603152	19 - 5C	827840	17B- 22B		2121754
603541	16 - 79	827841	19 - 28		6 - 7
609687	5 - 108	845762	17A- 23D		2122258
	17 - 12	1073418	19 - 29		19 - 10
	17C- 34		1 - 107		19 - 11
	19 - 22		17C- 12		19 - 10A
615354	16 - 81	813681	17 - 16		2122260
	16 - 81A	813801	19 - 30		19 - 11A
620093	11 - 25	813802	19 - 65		2122627
631644	19 - 9A	827840	19 - 66		19 - 51C
719552	4 - 8	827841	4A- 10		11 - 6A
725347	4A- 7	845762	4A- 10A		19 - 32
	4A- 7	1073418	1 - 29A		2124546
	4A- 7		5 - 25A		16 - 99A
725557	19 - 23		6 - 15		16 - 99E
725558	5 - 109		6 - 20		17C- 14
			9 - 5		1 - 30
					16 - 3
					2 - 9
					17 - 3
					1 - 31
					2125974
					1 - 31
					2127854
					19 - 63
					19 - 68
					19 - 63A
					19 - 33
					19 - 10B
					19 - 11B

PART NO.	LIST AND INDEX NO.	PART NO.	LIST AND INDEX NO.	PART NO.	LIST AND INDEX NO.
2129359	16 - 100	2154244	5 - 32	2154915	16 - 108
2129362	16 - 101	2154251	5 - 33	2157302	9 - 19
2130557	16 - 103		5 - 33	2157303	9 - 20
2133900	4A- 32 0 - 3	2154252	18 - 4 18A- 7	2157304	9 - 21
2133901	4A- 32 0 - 3	2154255	11 - 11	2157307	5 - 43
2133902	4A- 32 0 - 3	2154256	11 - 15	2157308	5 - 73A
2133903	4A- 32 0 - 3	2154258	11 - 57	2157327	9 - 17
2133904	4A- 32 0 - 3	2154259	11 - 61		9 - 36
2133905	4A- 32 0 - 3	2154268	11 - 16	2157330	9 - 11
2133906	4A- 32 0 - 3	2154286	1 - 90A	2157340	5 - 44
2133907	4A- 32 0 - 3	2154301	10 - 12	2157343	9 - 22
2133908	1 - 103 0 - 1	2154303	10 - 13	2157344	9 - 23
2133909	1 - 103 0 - 1	2154304	9 - 6	2157349	8 - 6
2152788	19 - 34	2154306	10 - 14	2157354	5 - 45
2152789	19 - 34A	2154307	10 - 15	2157356	6 - 14
2152818	16 - 104A	2154316	5 - 74	2157359	4 - 17
2154009	1 - 32	2154317	5 - 75	2157361	6 - 19
2154061	18 - 1	2154318	5 - 76	2157392	16 - 110
2154063	18A- 2	2154326	10 - 16	2157602	4 - 18
2154064	18A- 3	2154327	10 - 17	2157615	4A- 15
2154069	18 - 2	2154328	10 - 18	2157616	3 - 3
2154096	18A- 5	2154329	10 - 19	2157620	2 - 35
2154120	18 - 3	2154330	10 - 20	2157628	1 - 34
2154121	18A- 6	2154331	10 - 21	2157632	3 - REF
2154124	6 - 8	2154332	10 - 22	2157639	2 - 10
2154127	6 - 50	2154337	9 - 15	2157643	2 - 49B
2154130	6 - 51	2154338	9 - 34	2157647	2 - 11
2154132	6 - 24	2154339	9 - 35	2157649	2 - 12
2154133	6 - 36	2154342	9 - 9	2157651	1 - 35
2154134	6 - 52	2154344	9 - 10	2157665	18 - 4A
2154136	6 - 56	2154348	9 - 29	2157666	18A- 8
2154138	6 - 10	2154349	10 - 27	2157673	1 - 36
2154140	6 - 10A	2154352	10 - 28	2157682	18 - 18A
2154141	6 - 55	2154355	10 - 29	2157683	18A- 28A
2154143	6 - 11	2154356	10 - 23	2157684	18 - 17
2154145	6 - 12	2154357	19 - 35A	2157688	18A- 28
2154146	6 - 57	2154358	5 - 34	2157692	18 - 18
2154147	6 - 57A	2154360	5 - 35	2157693	18A- 29
2154148	6 - 21	2154374	5 - 36	2160715	2 - 15
2154149	6 - 16	2154393	11 - 17	2160717	1 - 37
5 - 27A	6 - 17	2154408	14 - 15	2160719	5 - 46
6 - 22	6 - 18	2154411	14 - 16	2160764	1 - 38
2154150	6 - 23	2154418	14 - 17	2160765	9 - 24
2154151	6 - 13	2154419	5 - 37	2160789	10 - 24
2154153	5 - 28	2154423	7 - 4	2160790	16 - 112
2154201	5 - 29	2154424	7 - 5	2160804	16 - 113
2154202	11 - 14	2154426	7 - 6	2160805	16 - 114
2154203	10 - 11	2154429	7 - 7	2160808	16 - 115
2154204	11 - 7	2154430	7 - 8	2160812	16 - 117
2154207	11 - 8	2154448	7 - 9	2160826	16 - 117
2154208	11 - 9	2154451	5 - 82	2160837	16 - 119
2154209	11 - 54	2154453	5 - 38	2160846	18 - 5
2154212	11 - 10	2154456	5 - 39	2160847	18A- 9
2154231	11 - 59	2154457	5 - 82A	2160849	18 - 6
11 - 63	11 - 60	2154459	5 - 40	2160863	18A- 10
2154233	11 - 64	2154461	5 - 41	2160864	16 - 121
2154234	11 - 55	2154469	5 - 42	2160865	2 - 16
2154236	11 - 56	2154534	7 - 10	2160866	18 - 14
2154237	5 - 30	2154541	1 - 33	2160867	18A- 18
2154238	5 - 31	2154542	4 - 26	2160868	5 - 47
2154239	11 - 30	2154543	1 - 33	2160869	5 - 83
2154243	19 - 35	2154545	4 - 16	2160874	5A- 10
		2154659	11 - 18	2160886	5 - 84
		2154687	16 - 105	2160887	5 - 48
			16 - 105A	2160890	9 - 25
			16 - 105B	2160891	9 - 30
		2154868	19 - 36	2160892	9 - 31
		2154888	19 - 36A	2160893	9 - 13
		2154914	16 - 106	2160894	9 - 32
				2160901	9 - 12
				2160917	5A- 11
				2160918	5A- 12
				2160951	9 - 18
					9 - 37
					13 - 13
					15 - 9

PART NO.	LIST AND INDEX NO.	PART NO.	LIST AND INDEX NO.	PART NO.	LIST AND INDEX NO.
2160953	15 - 10	2162883	5 - 77A	2180410	5 - 78
2160959	13 - 14	2162884	5 - 77B		6 - REF
	15 - 11	2162885	5 - 77J	2180413	6 - 58
2160961	5 - 49	2162886	5 - 77C	2180414	6 - 24
2160963	5 - 50	2162891	18 - 18A	2180416	6 - 58A
2162500	2 - 16A	2162901	19 - 2	2180417	6 - 59
2162507	2 - 17	2162902	19 - 2	2180419	6 - 25
2162529	18A- 19	2162903	19 - 2	2180420	5 - 79
2162532	11 - 22	2162904	19 - 2		7 - REF
2162533	5 - 51	2162905	19 - 2	2180421	6 - 60
2162535	5 - 52	2162906	19 - 2	2180423	6 - 35
2162539	11 - 31	2162907	19 - 2		6 - 60A
2162543	2 - 18	2162908	19 - 2	2180424	6 - 26
2162551	8 - 7	2162909	19 - 2	2180425	6 - 61
	12 - 6	2162910	19 - 2	2180426	6 - 61A
2162552	18A- 20	2162911	19 - 2	2180427	6 - 61B
2162555	18A- 21	2162912	19 - 2		6 - 61C
2162556	11 - 65	2162913	19 - 2	2180429	6 - 27
2162558	18A- 22	2162914	19 - 2	2180430	6 - 28
2162559	18 - 15	2162915	19 - 2	2180431	6 - 36
	18A- 23	2162916	19 - 2	2180432	6 - 29
2162560	18A- 24	2162917	19 - 2	2180439	5 - 80
2162563	18A- 25	2162918	19 - 2	2180443	10 - 26
2162564	1 - 39	2162919	19 - 2	2180444	10 - 30
2162565	1 - 40	2162920	19 - 2	2180445	11 - 23
2162567	1 - 98	2162921	19 - 2	2180446	11 - 26
2162569	11 - 27	2162922	19 - 2	2180447	11 - 32
2162597	18A- 26	2162923	19 - 2	2180451	11 - 33
2162600	5A- 14	2162924	19 - 2	2180452	11 - 36
2162601	18A-REF	2162925	19 - 2	2180455	11 - 39
	0 - 5	2162926	19 - 2	2180462	11 - 43
2162620	14 - 18	2162927	19 - 2	2180464	9 - 43
2162623	14 - 19	2162928	19 - 2	2180465	6 - 30
2162663	18 - 16	2162929	19 - 2	2180467	6 - 62
	18A- 27	2162930	19 - 2	2180468	6 - 31
2162669	5 - 55	2162931	19 - 2	2180470	1 - 42
	5A-REF	2162932	19 - 2		2 - REF
2162679	2 - 62	2162933	19 - 2	2180471	2 - 52
	2 - 62	2162934	19 - 2	2180472	5 - 81
2162691	18 - 18A	2162951	2 - 36	2180475	1 - 43
2162692	18 - 18A		2 - 49C	2180476	1 - 44
	12 - 7	2162953	2 - 37	2180478	5 - 87
2162720	2 - 19	2162954	2 - 38	2180479	8 - 8
2162721	2 - 20	2162955	2 - 39	2180480	5 - 88
2162723	2 - 21	2162956	2 - 40		8 - REF
2162728	5 - 77G	2162957	2 - 41	2180484	8 - 9
2162747	9 - 38	2162958	2 - 42	2180486	5 - 89
2162748	9 - 41	2162959	2 - 25	2180487	5 - 110
2162749	9 - 42	2162961	2 - 26	2180491	5 - 90
2162772	18 - 19	2162962	2 - 27	2180492	5 - 85
2162774	5 - 77	2162963	2 - 28	2180497	5 - 111
2162793	2 - 22	2162964	2 - 29	2180499	1 - 45
	3 - 4	2162965	2 - 30		8 - 17
	3 - 4A	2162966	2 - 31	2180500	1 - REF
2162802	5 - 71	2162967	2 - 43		- 1
2162807	3 - 5	2162969	2 - 32	2180501	9 - 44
2162833	14 - 20	2162972	2 - 33		10 - REF
2162836	18 - 20	2162974	2 - 34	2180502	11 - 66
2162837	18 - 21	2162977	2 - 44	2180503	9 - 45
2162840	18 - 22		2 - 50	2180505	9 - 46
2162841	18 - 23	2162978	2 - 51	2180510	9 - 47
2162842	18 - 24	2173758	5 - 77K		11 - REF
2162843	2 - 23	2178420	16 - 122	2180511	5 - 91
2162844	2 - 24	2178469	19 - 37	2180519	1 - 46
2162847	1 - 33	2178470	19 - 37A	2180520	5 - 92
	4 - 26	2178516	16 - 123		9 - REF
2162848	1 - 33	2178523	16 - 124	2180521	5 - 93
	4 - 26	2178526	19 - 75	2180522	5 - 94
2162849	16 - 81	2178540	1 - 91	2180524	5 - 95
	16 - 81	2178541	1 - 91	2180525	12 - 8
	16 - 81A	2178542	1 - 91	2180526	5 - 96
2162852	18 - REF	2178543	1 - 91	2180527	12 - 9
	0 - 5	2178554	14 - 21	2180528	9 - 48
2162854	18 - 25	2178596	17B- 6	2180529	10 - 25
2162857	18 - 26	2178597	17 - 25	2180531	5 - 97
2162858	18 - 27		17B- 7		12 - REF
2162871	18 - 4A		17C- 19	2180548	7 - 12
2162872	5 - 72	2180400	1 - 41	2180560	1 - 47
2162873	18 - 28		5 - REF	2180561	1 - 48
2162878	5 - 77H	2180408	7 - 11	2180562	1 - 49

PART NO.	LIST AND INDEX NO.
2180563	1- 1 - 50
2180611	1- 5 - 98
2180612	1- 5 - 99
2180613	1- 12 - 10
2180624	1- 5 - 100
2180625	1- 12 - 11
2180659	1- 19 - 38
2180660	1- 19 - 39
2180661	1- 19 - 40
2180662	1- 19 - 41
2180663	1- 19 - 42
2180664	1- 19 - 43
2180665	1- 19 - 43A
2180666	19 - 43B
2180667	19 - 43C
2180668	19 - 44
2180669	19 - 45
2180670	19 - 46
2180671	19 - 47
2180672	19 - 48
2180673	19 - 49
2180675	11 - 49
2180677	16 - 125
2180678	16 - 126
2180679	1 - 51
2180680	1 - 52
2180681	16 - REF
2180682	16 - 127
2180683	16 - 128
2180684	17C- 15
	4 - 19
	4A - 16
2180685	16 - 129
2180686	16 - 130
2180687	1 - 53
2180688	16 - 131
2180689	17 - 19
2180690	17C- 16
2180691	1 - 54
2180692	1 - 55
	16 - 132
	1 - 56
2180693	16 - 133
	0 - 7
	0 - 7
2180701	9 - 49
2180702	5 - 101
	5 - 101
2180709	5 - 102
2180714	1 - 57
	1 - 57
2180716	19 - 51
2180720	17 - 20
	17C- 17
2180721	17 - 22
2180722	17 - 23
2180723	1 - 58
2180727	17 - 26
	17C- 20
2180733	17 - 27
	17C- 21
2180735	1 - 59
2180737	1 - 60
2180740	1 - 61
	1 - 61
	17 - REF
2180744	1- 17C-REF
	1- 17 - 24
	1- 17C - 18
2180746	1- 19 - 51A
	33- 0 - 6
2180747	1- 19 - 51F
2180748	1- 13 - 15
2180749	1- 5 - 103
	1- 13 - REF
2180750	1- 15 - 12
2180752	1- 5 - 104
2180753	1- 16 - 134
2180755	1- 16 - 135

PART NO.	LIST AND INDEX NO.
2180760	6 - 63
2180761	6 - 67
2180762	5 - 105
2180763	5 - 106
2180764	6 - 32
2180765	6 - 37
2180766	6 - 33
2180767	6 - 38
2180768	6 - 42
2180769	6 - 43
2180770	6 - 44
2180771	6 - 45
2180772	6 - 46
2180773	6 - 47
2180774	6 - 48
2180775	6 - 49
2180776	6 - 50
2180777	6 - 69
2180778	6 - 70
2180779	7 - 13
2180781	1 - 33
2180782	4 - 26
2180783	1 - 33
2180784	4 - 26
2180785	6 - 64
2180786	6 - 65
2180787	7 - 14
2180788	7 - 15
2180789	7 - 16
2180790	6 - 66
2180791	19 - 52
2180792	17 - 29
2180793	17C- 23
2180794	7 - 17
2180795	5 - 112
2180796	5 - 113
2180797	16 - 136
2180798	16 - 137
2180799	16 - 138
2180800	1 - 67C
2180801	1 - 67D
2180802	1 - 67E
2180803	1 - 67F
2180804	1 - REF
2180805	0 - 1
2180806	1 - 52
	16 - REF
2180808	0 - 2
2180809	0 - 2
2180810	0 - 7
2180811	0 - 7
2180812	0 - 2
2180813	0 - 2
2180814	0 - 2
2180815	5 - 135
2180816	5 - 106
2180817	18 - 29
2180818	18 - 30
2180819	18 - 31
2180820	1 - 67
2180821	5 - 80
2180822	1 - 108
2180823	1 - 92
2180824	2A - REF
2180825	1 - 92A
2180826	2A - REF
2180827	2A - 4
2180828	2A - 4
2180829	2A - 4
2180830	2A - 4
2180831	2A - 4
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2180898	2A - 4
2180899	2A - 4
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2180908	2A - 4
2180909	2A - 4

PART NO.	LIST AND INDEX NO.
2180910	1 - 90
	- 1
2180911	1 - 90
	- 1
2180912	1 - 90
	- 1
2180913	1 - 90
	- 1
2180914	19 - 53
2180915	1 - 101
2180916	5 - 35
	5 - 114
2180917	5 - 115
2180918	1 - 81
	1 - 81
	4 - REF
	4A - REF
2180919	1 - 81
	1 - 81
	4 - REF
	4A - REF
2180920	4 - 20
	4A - 17
2180921	4 - 21
	4A - 18
	4A - 18
	4A - 18
2180923	5 - 123
2180924	5 - 124
2180925	6 - 67
2180928	5 - 125
2180930	5 - 126
2180932	6 - 68
2180933	17 - 30A
2180938	4A - 19
	4A - 19
2180939	4A - 19
2180940	4A - 33
2180941	4A - 33
2180942	4A - 33
2180943	4A - 33
2180944	4A - 33
2180945	4A - 33
2180946	4A - 33
2180947	4A - 33
2180948	4A - 20
	4A - 20
2180949	4A - 20
2180950	4A - 20
2180962	2A - 5
2180963	2A - 6
	2A - 6
	2A - 6
2180964	2A - 7
2180965	2A - 8
	2A - 8
	2A - 8
2180966	2 - 53
2180967	2 - 54
2180968	1 - 67G
2180969	16 - 139
2180970	16 - 140
2180972	17 - 30
	17A - 24
	17C - 24
	19 - 54
2180973	17A - 24A
	17B - 17
	19 - 55
2180974	17 - 28
	17C - 22
2180976	2 - 45
2180977	16 - 141
2180978	16 - 142
2180983	14 - 22
2180984	14 - 23
2180985	14 - 24
2180986	5 - 134

PART NO.	LIST AND INDEX NO.	PART NO.	LIST AND INDEX NO.	PART NO.	LIST AND INDEX NO.
2180986-CONT	14 -REF	2181073	2 - 24	2181233	5 - 139
2180988	5 - 135	2181074	6 - 57A	2181234	17B- 5
2180989	5 - 136	2181075	6 - 16	2181235	17A- 12
2180990	5 - 137	2181076	6 - 14	2181236	5 - 111
2180991	2 - 46	2181086	2 - 53	2181239	5 - 85
2180993	17C- 25	2181087	2 - 54	2181240	6 - 36
2181000	2 - 47	2181088	17 - 32		5 - 138
2181004	1 - 16		17C- 28		15 -REF
	1 - 86	2181090	16 - 75A	2181245	2 - 49A
	16 - 31	2181092	16 - 144	2181249	4A- 18
2181005	1 - 1A	2181094	16 - 144	2181250	4A- 18
	2 - 55	2181100	17B- 20A	2181257	9 - 43
	17 - 14A	2181101	17B- 9	2181258	16 - 122
	17 - 31	2181102	17A- 26	2181261	- 7
	17 - 31	2181103	17A- 26A	2181262	- 7
	17 - 31A	2181104	17B- 10	2181263	- 7
	17A- 25	2181106	17A- 27	2181264	- 7
	17A- 25A	2181107	17A- 31	2181265	- 7
	17B- 8	2181109	17B- 11	2181266	19 - 74
	17C- 26	2181110	17B- 18	2181270	5 - 126
2181006	17 - 32	2181112	17A- 32	2181271	1 - 84E
2181007	17 - 33	2181113	17A- 33	2181272	1 - 84F
	17 - 33	2181114	17A- 34	2181273	5 - 90
	17C- 27	2181115	17B- 12	2181274	5 - 78
2181008	2 - 56	2181116	17B- 21		5 - 78
2181009	2 - 48	2181117	17B- 22		6 -REF
2181010	2 - 49	2181119	17A- 35	2181276	5 - 126
	7 - 2A	2181129	17B- 23	2181277	16 - 149
2181011	2 - 57	2181132	17B- 24	2181283	5 - 135C
2181012	2 - 58	2181133	17A- 37	2181284	16 - 86
	4A- 21	2181141	17A- 27	2181285	5 - 135D
2181013	16 - 143	2181146	5 - 83	2181286	5 - 135D
2181021	2 - 59	2181148	13 - 15	2181288	5 - 86
2181022	1 - 82	2181149	5 - 103	2181289	5 - 86A
2181023	1 - 83		13 -REF	2181290	1 - 82
2181024	1 - 92	2181171	6 - 16	2181291	1 - 38
	2A-REF	2181172	6 - 18	2181295	5 - 135
2181025	0 - 7	2181173	6 - 14	2181296	5 - 135
2181027	1 - 92A	2181174	6 - 61C	2181314	2 - 59A
	2A-REF	2181175	6 - 61B	2181324	10 - 21
2181028	2A- 10	2181177	6 - 57	2181325	11 - 15
	2A- 10	2181178	6 - 57A	2181326	11 - 12
2181029	2A- 11	2181181	6 - 64	2181329	11 - 11
	2A- 11	2181182	6 - 55	2181331	17C- 41
2181030	1 - 91	2181183	6 - 62	2181332	16 - 122
2181031	1 - 91	2181184	6 - 59	2181334	16 - 151
2181032	1 - 91	2181185	6 - 47	2181347	9 - 38
2181033	1 - 91	2181186	5 - 37	2181385	17C- 29
2181034	1 - 90	2181189	1 - 56	2181388	16 - 138
	0 - 1		16 - 133	2181398	17C- 36
2181035	1 - 90	2181190	0 - 7	2181399	17C- 37
	0 - 1		0 - 7	2184182	19 - 56
2181036	1 - 90		0 - 7	2184183	19 - 56A
	0 - 1		0 - 7	2191846	17A- 38
2181037	1 - 90		0 - 7	2192509	17 - 34
	0 - 1	2181194	11 - 33		17C- 42
2181038	5 - 137A	2181195	11 - 36	2194011	- 8
2181039	1 - 46	2181199	1 - 84A	2200012	17A-REF
2181040	5 - 137B		16 - 145		- 4
2181041	7 - 18	2181201	19 - 67	2200013	17A- 2
	7 - 18		0 - 7	2200014	17A- 1
2181042	5 - 137C	2181202	19 - 69	2200018	17B-REF
2181043	1 - 83A	2181203	19 - 70		18 - REF
2181044	5 - 59	2181204	1 - 84B		- 5
2181046	5 - 60		16 - 146	2218103	18 - 4A
2181051	5 - 61		1 - 84C	2218117	18 - 5
2181052	5 - 137D	2181205	16 - 147	2218636	9 - 42
2181053	5 - 137E	2181206	1 - 84D	2218668	16 - 105B
2181054	5 - 137F		16 - 148	2218673	7 - 11
2181055	5 - 62	2181207	1 - 4	2218674	5 - 79
2181056	7 - 11		16 - 4A	2244018	7 -REF
2181058	7 - 16	2181209	5 - 39	2244021	17C- 37
	7 - 16	2181211	19 - 71	2244026	17C- 39
2181059	5 - 55	2181213	5 - 138	2244027	8 - 6
2181062	5 - 79		15 -REF	2244028	18 - 17B
	7 -REF	2181216	6 - 19		18A- 28B
2181067	5 - 138	2181217	6 - 21		18 - 17C
	15 -REF	2181225	1 - 93		18A- 28C
2181070	1 - 84		0 - 1	2244031	18 - 17
2181072	2 - 23				18A- 28

PART NO.	LIST AND INDEX NO.
2244038	18 - 17D 18A- 28D
2244042	5 - 140
2244043	5 - 141
2244046	5 - 142
2244049	5 - 103 13 - REF
2244205	5 - 143
2244948	17B- 12
2244951	17A- 34
2414877	15 - 13
2414895	13 - 8 13 - 9 15 - 4 15 - 14
2414920	13 - 16
2414924	4 - 22
4061423	4 - 16
4061426	4 - 17
4061427	4 - 17
4061518	5 - 71
4061678	2 - 62
4061679	2 - 62
4061725	1 - 87

PART NO.	LIST AND INDEX NO.
4100328	5 - 125
4117458	16 - 122
4121202	16 - 74
4207403	1 - 57
4207404	1 - 57
4251623	0 - 1
5102917	5 - 111
5212727	16 - 152
5213274	19 - 57
5308492	16 - 143 16 - 153 16 - 154
5319854	4 - 23 4A- 22 17B- 25
5319888	1 - 85
5348495	1 - 86
5350006	2 - 60
5350012	2 - 61
5352960	19 - 73
5353883	17A- 39 17B- 26
5353887	17A- 40 17B- 27

PART NO.	LIST AND INDEX NO.
5353889	17A- 41 17B- 28
5362163	4A- 6
5362301	17B- 22C 19 - 58
5393130	19 - 74A
5700484	17A- 42 17B- 29
5800610	19 - 62
5800634	17B- 19
5800736	19 - 51G 19 - 72
5801245	17B- 30
5801246	17B- 20
5804271	1 - 109
5805007	19 - 59
5805008	19 - 60
5805009	19 - 61
5811144	17 - 35
5819436	17C- 43 19 - 77
7350362	1 - 87
8010761	16 - 27

# INSTALLATION INSTRUCTIONS

P/N 2181069

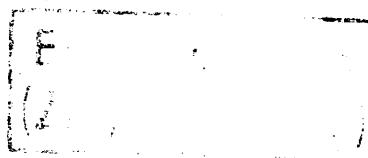
SHEET 1 OF 8

RELEASED MAINZ

## INDEX

UNPACKING & MACHINE LOCATION	PAGE 2
BASEPLATE GROUNDING CHECK	2
CABLING TO FILE CONTROL UNIT	2
MECHANICAL CHECKS	3
POWER CHECK (DISK PACK OFF)	3
HEAD - DISK CHECK (POWER OFF)	4
FILE MOTOR & HEAD LOADING CHECK	5
HEAD UNLOADING CHECK	6
POWER - ON MOTOR SEQUENCE CHECK	6
HEAD ALIGNMENT CHECK	6
GENERAL CHECKS	6
HYDRAULIC SUMP RELIEF INSTALLATION (WTC)	8

PUNCH 23 HOLES ON THIS SIDE



APPROVAL	CHECK	MAT. LAB.	CCP/LAB.
<i>[Signature]</i>			
17.5.68			

ENO. DATE CHANGE NO.	411125	21JUN66 408081B	26JUN67 411309	13MAR68 411355		
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**IBM****FIELD ENGINEERING  
INSTALLATION INSTRUCTIONS**MACHINE TYPE 2311P/N 2181069  
SHEET 2 OF 8

RELEASED MAINZ

NOTE: DO THE FOLLOWING STEPS IN THE SEQUENCE GIVEN UNLESS OTHERWISE NOTED.

**A - UNPACKING AND MACHINE LOCATION**

1. REMOVE PACKING. CHECK MACHINES FOR POSSIBLE SHIPPING DAMAGE.
2. INVENTORY THE PARTS IN THE SHIPPING GROUP.
3. POSITION THE FILES IN THEIR APPROXIMATE FINAL LOCATIONS (REFER TO FIGURE 1).
4. REMOVE FRONT AND REAR COVERS. LEAVE TOP COVERS IN PLACE.
5. REMOVE SHIPPING BRACES, ETC.

**B - BASEPLATE GROUNDING CHECK**

1. MEASURE RESISTANCE BETWEEN GATE DC TERMINAL #1 AND FRAME GROUND ON FILES WHICH HAVE FEED-THRU FILTER CAPACITORS MOUNTED ON THE GATE ASSEMBLY. MEASURE RESISTANCE BETWEEN GATE DC TERMINAL #7 AND FRAME GROUND ON FILES WHICH DO NOT HAVE FEED-THRU CAPACITORS. IN BOTH CASES THE READING SHOULD BE 2 MOEGHMS OR HIGHER. ANY LOWER READING INDICATES AN ERRONEOUS GROUND BETWEEN BASEPLATE AND MACHINE FRAME, WHICH MUST BE ELIMINATED BEFORE PROCEEDING.  
(THE BASEPLATE IS THE LARGE ALUMINUM PLATE ON WHICH THE ACCESS IS MOUNTED. IT IS NORMALLY GROUNDED AT ONE POINT ONLY BY MEANS OF A LEAD CONNECTED TO THE GATE DC TERMINAL #1).  
IF NO EXTRA GROUNDS EXIST, CONTINUE.

2. REPEAT ITEM B1 FOR EACH FILE.

**C - CABLING TO FCU (REFER TO FIG. 1)**

1. REMOVE ALL AC POWER TO THE "SOURCE" UNIT SUPPLYING POWER TO THE 2311 FILES (2020-2841 ETC.)
2. INSTALL ONE AC CABLE BETWEEN FCU AND FILE MODULE 0, PLUGGING ONE END INTO THE SOURCE UNIT AC PLUG PROVIDED, AND PLUGGING THE OTHER END INTO "AC IN" FILE MODULE 0.
3. IF ADDITIONAL FILES ARE BEING INSTALLED, CONNECT THE NEXT AC CABLE BETWEEN "AC OUT" MODULE 0 AND "AC IN" MODULE 1. CONTINUE INSTALLING FILE AC CABLES IN ASCENDING ORDER OF MODULE NUMBERS.  
NOTE: THE HIGH ORDER MODULE WILL NOT HAVE ANY CONNECTION IN THE "AC OUT" RECEPTACLE.
4. INSTALL ONE SEQUENCE/SIGNAL CABLE BETWEEN SOURCE UNIT AND FILE MODULE 0, PLUGGING ONE END INTO THE SOURCE UNIT SEQUENCE/SIGNAL PLUG PROVIDED, AND PLUGGING THE OTHER END INTO "SIGNAL IN" FILE MODULE 0.
5. IF ADDITIONAL FILES ARE BEING INSTALLED, CONNECT THE REMAINING SEQUENCE/SIGNAL CABLES BETWEEN MODULES IN ASCENDING ORDER. A 2311 SIGNAL TERMINATOR MUST BE PLUGGED INTO THE "SIGNAL OUT" RECEPTACLE OF THE HIGH ORDER MODULE. (TERMINATOR IS SUPPLIED IN THE SHIPPING GROUP OF THE SOURCE UNIT TO WHICH THE FILES ARE ATTACHED).

ENG. DATE		21JUN66	26JUN67	13MAR68		
CHANGE NO.	411125	408081B	411309	411355		

**IBM****FIELD ENGINEERING  
INSTALLATION INSTRUCTIONS****MACHINE TYPE 2311**P/N 2181069  
SHEET 3 OF 8**RELEASED MAINZ**

6. INSTALL ONE DC/DATA CONTROL CABLE BETWEEN SOURCE UNIT AND EACH OF THE FILES. THE DC PLUGS IN SOURCE UNIT ARE LABELLED TO INDICATE THE MODULE TO BE CONNECTED; THE OTHER END (OF EACH CABLE) PLUGS INTO THE DC RECEPTACLE ON THE SEQUENCE PANEL OF EACH FILE.

**D - MECHANICAL CHECKS****1. LEVEL MACHINE**

- a. LOOSEN LOCKNUTS ON REAR CASTORS.
- b. ADJUST ONE OR BOTH REAR CASTORS UNTIL MACHINE IS LEVEL AND RESTING ON ALL FOUR CASTORS. (NOTE: IN LEVELLING, IT MAY BE NECESSARY TO SLIGHTLY ADJUST ONE OF THE FRONT CASTORS IF THE FLOOR IS UNEVEN).
- c. AFTER LEVELLING MACHINE, LOWER EACH REAR CASTOR ONE FULL TURN. (THIS WILL RAISE THE MACHINE APPROXIMATELY 1/8").
- d. LOWER THE TWO STABILIZING JACKS (REAR OF MACHINE) UNTIL THEY CONTACT THE FLOOR. LOCK IN PLACE.
- e. RAISE THE REAR CASTORS UNTIL THEY CLEAR THE FLOOR, THEN LOCK IN PLACE.
2. CHECK THAT THE INDEX TRANSDUCER RETRACTS FULLY WHEN THE CUSTOMER COVER IS RAISED. CLOSE CUSTOMER COVER AND REMOVE ENTIRE TOP COVER FROM THE MACHINE.
3. CHECK OIL LINES AND FITTINGS FOR LEAKS AND BASE CASTING FOR SIGNS OF OIL.
4. WTC MACHINES ONLY: INSTALL CUP P/N 2180771 AND WASHER P/N 2180769 TO HYDRAULIC SUMP. REF. PAGE 8 OF THESE INSTRUCTIONS.
5. CHECK TORSION RODS FOR PROPER SEATING AGAINST R/W HEADS: CHECK THAT ARMS ARE SEATED AGAINST ADJUSTING SCREWS AND THAT ARM CLAMPS ARE SNUG.
6. CHECK THE R/W HEAD PLUGS FOR LOOSE CONNECTIONS.
7. CHECK TRANSDUCERS FOR LOOSE CONNECTORS.
8. CHECK TERMINAL BLOCK AT BACK END OF ACTUATOR FOR LOOSE TERMINALS AND SHORTS.
9. CHECK MOTOR DRIVE BELT AND PUMP PULLEY FOR SIGNS OF OIL INDICATING A POSSIBLE DEFECTIVE OIL SEAL IN THE PUMP.
10. CHECK THAT SLT CARDS AND PADDLE CARDS ARE SECURELY PLUGGED IN THE GATE.
11. REPEAT STEPS D1 - D9 FOR ALL FILES BEING INSTALLED.

**E. POWER CHECK (DISK PACK OFF)**

1. a. 60 CYCLE MACHINES SER. NO. 19477 AND LOWER CONNECT JUMPER ON FILE +36 VOLT POWER SUPPLY TB-1 TO MATCH THE AC INPUT VOLTAGE (SEE LOGIC FD111).

ENG. DATE		21JUN66	26JUN67	13MAR68		
CHANGE NO.	411125	408081B	411309	411355		

**IBM**FIELD ENGINEERING  
INSTALLATION INSTRUCTIONSMACHINE TYPE 2311P/N 2181069  
SHEET 4 OF 8

RELEASED MAINZ

## b. 50 CYCLE

- (1) CONNECT TRANSFORMER TAPS AT PSTB-1 TO MATCH THE AC INPUT VOLTAGE (SEE LOGIC FD111).
- (2) CONNECT JUMPER AT TS-2 FOR THE CONFIGURATION OF AC INPUT (I.E.  $\Delta$  OR Y) (SEE LOGIC FD110).

2. TURN OFF ALL FILE AC DISCONNECT SWITCHES.
  3. REPEAT STEP E1 a. OR b. ON ALL FILES BEING INSTALLED.
  4. TURN OFF ALL FILE START/STOP SWITCHES. TURN ON FCU POWER. TURN ON FILE AC DISCONNECT SWITCHES.
  5. CHECK THE FOLLOWING VOLTAGES AT THE GATE DC TERMINAL STRIP USING GATE DC GROUND TERMINALS 5, 6, AND 7 (JUMPERED) AS A REFERENCE; ADJUST AS NEEDED.  
NOTE: VOLTAGES SUPPLIED BY "SOURCE" UNIT 2020-2841 ETC. MUST BE MEASURED AT SUPPLY BUSS IN "SOURCE" UNIT WHILE ADJUSTING. USE THE "SOURCE" UNIT INSTALLATION INSTRUCTIONS FOR ADJUSTING VOLTAGES SUPPLIED BY THE "SOURCE" UNIT.
- | VOLTAGE | TERMINAL NO. | TOLERANCE          | SOURCE                       |
|---------|--------------|--------------------|------------------------------|
| +36     | 2            | +8% (33.1 to 38.9) | 2311                         |
| + 6     | 3            | +4% (5.75 to 6.25) | "SOURCE" UNIT 2020-2841 ETC. |
| + 3     | 4            | +4% (2.9 to 3.1)   | "SOURCE" UNIT 2020-2941 ETC. |
| - 3     | 8            | +4% (2.9 to 3.1)   | "SOURCE" UNIT 2020-2941 ETC. |
| -36     | 9            | +4% (34.6 to 37.4) | "SOURCE" UNIT 2020-2941 ETC. |

6. REPEAT STEP E5 ON ALL FILES BEING INSTALLED.
7. TURN OFF 2311 AC DISCONNECT SWITCHES. TURN OFF ALL FCU POWER.

## F - HEAD-DISK CHECK (POWER OFF)

1. INSPECT CE DISK PACK FOR SHIPPING DAMAGE.
2. VACUUM ENTIRE BASE PLATE AND CLEAN INSIDE OF SHROUD; SEE F.E. MAINTENANCE MANUAL.
3. CLEAN R/W HEADS; SEE F.E. MAINTENANCE MANUAL.
4. CHECK ADJUSTMENT OF THE HEAD UNLOAD KNOCKOFF; SEE 2311 F.E. MAINTENANCE MANUAL P/N Y26-5923.
5. BEFORE MOUNTING CE PACK, INSURE THAT THE DISK PACK BRUSHES ARE NOT EXTENDED INTO THE SHROUD AREA SO AS TO INTERFERE WITH THE DISK PACK. THE BRUSHES CAN BE MANUALLY PUSHED FROM WITHIN THE SHROUD AREA. ALSO INSURE THAT THE INDEX TRANSDUCER CLEARS THE PACK AS THE PACK IS LOWERED INTO PLACE.

ENG. DATE		21JUN66	26JUN67	13MAR68		
CHANGE NO.	411125	'08081B	411309	411355		

**IBM**FIELD ENGINEERING  
INSTALLATION INSTRUCTIONSMACHINE TYPE 2311P/N 2181069  
SHEET 5 OF 8

RELEASED MAINZ

## 6. MOUNT CE PACK.

NOTE: TO ENERGIZE THE ELECTRICAL BRAKE ON EARLY MODELS, TURN ON FCU POWER AND TURN ON THE FILE DISCONNECT SWITCH. ON LATER MODELS THE BRAKE IS MECHANICAL AND IS ACTIVATED BY MECHANICAL LINKAGE WHEN THE TOP COVER IS OPENED.

7. **WARNING:** DO NOT LET HEADS LOAD DURING THIS STEP - MANUALLY TRIP THE HEAD LOADING CAM LATCH TO AVOID LOADING HEADS, CAREFULLY MOVE CARRIAGE FORWARD INTO DISK PACK. (REF FIG 4-13; IN THE 2311 MAINTENANCE MANUAL.).
8. CHECK CLOSELY FOR INTERFERENCE BETWEEN HEADS, HEAD CABLES, AND DISKS. MOVE THE CARRIAGE ALL THE WAY TO POSITIVE STOP.
9. RESTORE THE CARRIAGE TO THE FULLY RETRACTED POSITION.
10. CHECK FOR PROPER CLEARANCE OF THE INDEX TRANSDUCER TO THE SLOTTED BOTTOM DISK.
11. CLEAN AND REPLACE TOP COVER. OPEN CE COVER (LEFT SIDE OF TOP COVER).
12. REPEAT STPS F2 - F10 ON ALL FILES BEING INSTALLED.

## G - FILE MOTOR AND HEAD LOADING CHECK

1. TURN ON FILE AC DISCONNECT SWITCH ONLY ON THE FILE BEING CHECKED ("SOURCE" UNIT POWER IS ON AND FILE START/STOP SWITCH IS OFF).
2. MOUNT CE DISK PACK AND TURN ON THE FILE START/STOP SWITCH.
3. CHECK THE FOLLOWING ITEMS:
  - a. PACK MOTOR STARTS
  - b. BRUSHES START INTO PACK
  - c. AS DISKS COME UP: TO SPEED DETECT PULLS OUT AND CARRIAGE EXTENDS TO HYDRAULIC HOME.
  - d. AFTER BRUSHES WITHDRAW FROM PACK, CARRIAGE GOES FORWARD FAST LOADING THE HEADS, THEN RETURNS TO CYL. 000.
  - e. WHEN HEADS ARE LOADED USE FLASHLIGHT TO CHECK THAT HEAD CABLES, ETC., ARE CLEAR OF DISKS.

ENG. DATE					
CHANGE NO.	411125	21JUN66 408081B	26JUN67 411309	13MAR68 411355	

# INSTALLATION INSTRUCTIONS

P/N 2181069  
SHEET 6 OF 8

- f. CARRIAGE IS DETENTED AT CYLINDER 000.
- g. READY LIGHT IS ON.
- h. NO OIL LEAKS PRESENT WITH POWER ON.

RELEASED MAINZ

## H - HEAD UNLOADING CHECK

(NOTE: THIS PROCEDURE REQUIRES THE ASSISTANCE OF ANOTHER PERSON.)

CAUTION: KEEP FINGERS OUT OF AREA BETWEEN CARRIAGE AND HYDRAULIC UNIT AND BETWEEN CARRIAGE AND CARRIAGE HOUSING.

1. STANDING IN FRONT OF MACHINE, FIRMLY RESTRAIN THE CARRIAGE ASSEMBLY FROM MOVING TOWARD HOME. (THIS CAN BE DONE BY GRASPING THE TOP RAIL WITH THE LEFT HAND.)
2. (NOTE: READ STEP 3 BEFORE EXECUTING STEP 2.) WHILE WATCHING THE HEADS IN THE 2311, POWER DOWN THE "SOURCE" UNIT SUPPLYING POWER TO THE 2311. (2020-POWER DOWN THE CPU, 2841-PLACE IN CE MODE AND PLACE POWER SWITCH ON CE PANEL TO "OFF"). THE HEADS SHOULD UNLOAD IMMEDIATELY.
3. IF THE HEADS DO NOT UNLOAD AT ONCE, BEFORE THE DISKS SLOW DOWN APPRECIABLY, RELEASE THE CARRIAGE ALLOWING IT TO RETRACT FULLY. THIS WILL "KNOCK OFF" THE HEAD LATCH, CAUSING THE HEADS TO UNLOAD. DETERMINE AND ELIMINATE THE CAUSE OF THIS FAILURE BEFORE PROCEEDING, THEN POWER BACK UP AND REPEAT STEP 2 ABOVE.
4. IF THE HEADS DO UNLOAD, CHECK THAT POWER IS PRESENT ON 2311 AS LONG AS THE CARRIAGE IS RESTRAINED FROM MOVING; HOWEVER, WHEN THE CARRIAGE IS ALLOWED TO RETRACT TO HOME, THE HEAD EXTENDED SWITCH SHOULD TRANSFER PERMITTING THE "SOURCE" TO DROP FILE POWER.
5. CLOSE TOP COVERS.
6. REPEAT SECTIONS G AND H ABOVE ON ALL FILES BEING INSTALLED.
7. WITH ALL FILE MOTORS ON, TURN SYSTEM POWER OFF. ALL MOTORS SHOULD TURN OFF, ALL HEADS SHOULD UNLOAD AND ALL CARRIAGES SHOULD RETRACT. (NOTE: IT IS NORMAL FOR SELECT LOCK LAMPS TO FLASH AS POWER GOES OFF.)

## I - POWER-ON MOTOR SEQUENCE CHECK

(NOTE: APPLIES TO MULTIPLE FILES ONLY.)

1. TURN ON SYSTEM POWER (FILE START/STOP SWITCHES WERE LEFT ON FROM PREVIOUS STEP).
2. MODULE 0 MOTOR SHOULD START IMMEDIATELY. WHEN CARRIAGE REACHES APPROX. 70% OF RATED SPEED THE CARRIAGE SHOULD EXTEND SLOWLY, THEN STOP AT HYDRAULIC HOME.
3. WHEN MODULE 0 CARRIAGE EXTENDS, MODULE 1 MOTOR SHOULD START, ETC. THIS SHOULD CONTINUE IN SEQUENCE (ONE FILE MOTOR STARTING AT A TIME) UNTIL ALL FILE MOTORS ARE ON.

## J - HEAD ALIGNMENT CHECK

NOTICE: ALL HEADS MUST BE ALIGNED AT INSTALLATION TO INSURE INTERCHANGABILITY OF DISK PACKS. REFER TO F.E. MAINTENANCE MANUAL FOR PROCEDURE. (NOTE: TO SAVE TIME, DO ITEM "K" BELOW DURING FILE WARMUP PERIOD.)

AFTER COMPLETING HEAD ALIGNMENT ON ONE FILE, MOVE THE C.E. DISK PACK TO THE NEXT FILE TO BE TESTED AND REPEAT THE ABOVE PROCEDURE.

## K - GENERAL CHECKS:

RUN DIAGNOSTICS TO CHECK THE OPERATION OF FILES, FCU AND METERS.

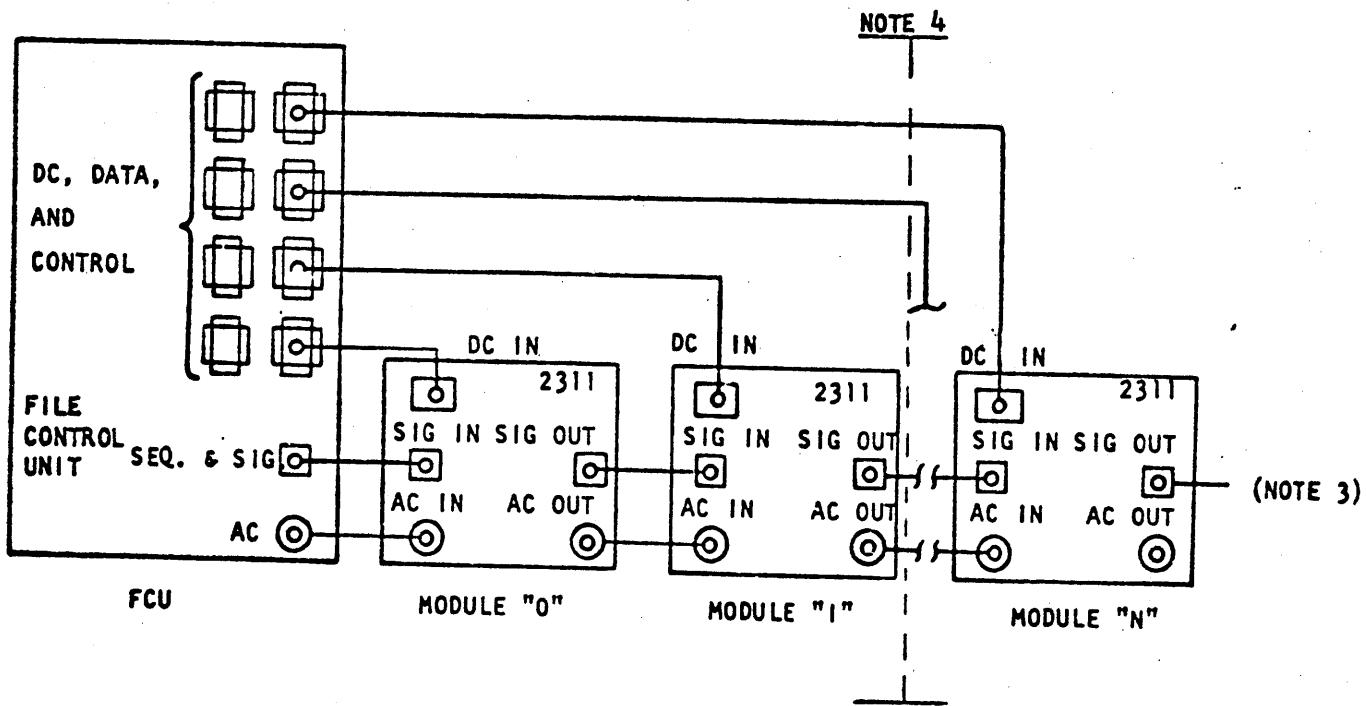
ENG. DATE	21JUN66	26JUN67	13MAR68		
CHANGE NO.	411125	408081B	411309	411355	

# INSTALLATION INSTRUCTIONS

P/N 2181069  
SHEET 7 OF 8

RELEASED MAINZ

FIG. 1 2311 CABLING



NOTE:

1. WHEN LAYING CABLES, SPACE 2311 CABLES AT LEAST 1 FOOT AWAY FROM ANY NON 2311 CABLES WHICH MIGHT INTRODUCE NOISE INTO THE 2311 (EG: UNSHIELDED POWER CABLES)
2. 2311 AC AND DC IN RECEPTACLES TAKE FEMALE END OF CABLES: THE SIG. IN RECEPTACLE TAKES SIGNAL CABLE PLUG MARKED "IN".
3. A 2311 SIGNAL TERMINATOR MUST BE PLUGGED INTO THE SIGNAL OUT RECEPTACLE OF THE LAST (HIGH ORDER) MODULE. REGARDLESS OF THE NUMBER OF FILES ATTACHED.
4. THE 2020 SYSTEM PROVIDES 2 DC PLUGS TO ACCOMMODATE A MAXIMUM OF 2-2311. OTHER FILE CONTROL UNITS PROVIDE 8 DC PLUGS TO ACCOMMODATE UP TO 8-2311.

ENG. DATE		26JUN67	13MAR68		
CHANGE NO.	411125	411309	411355		

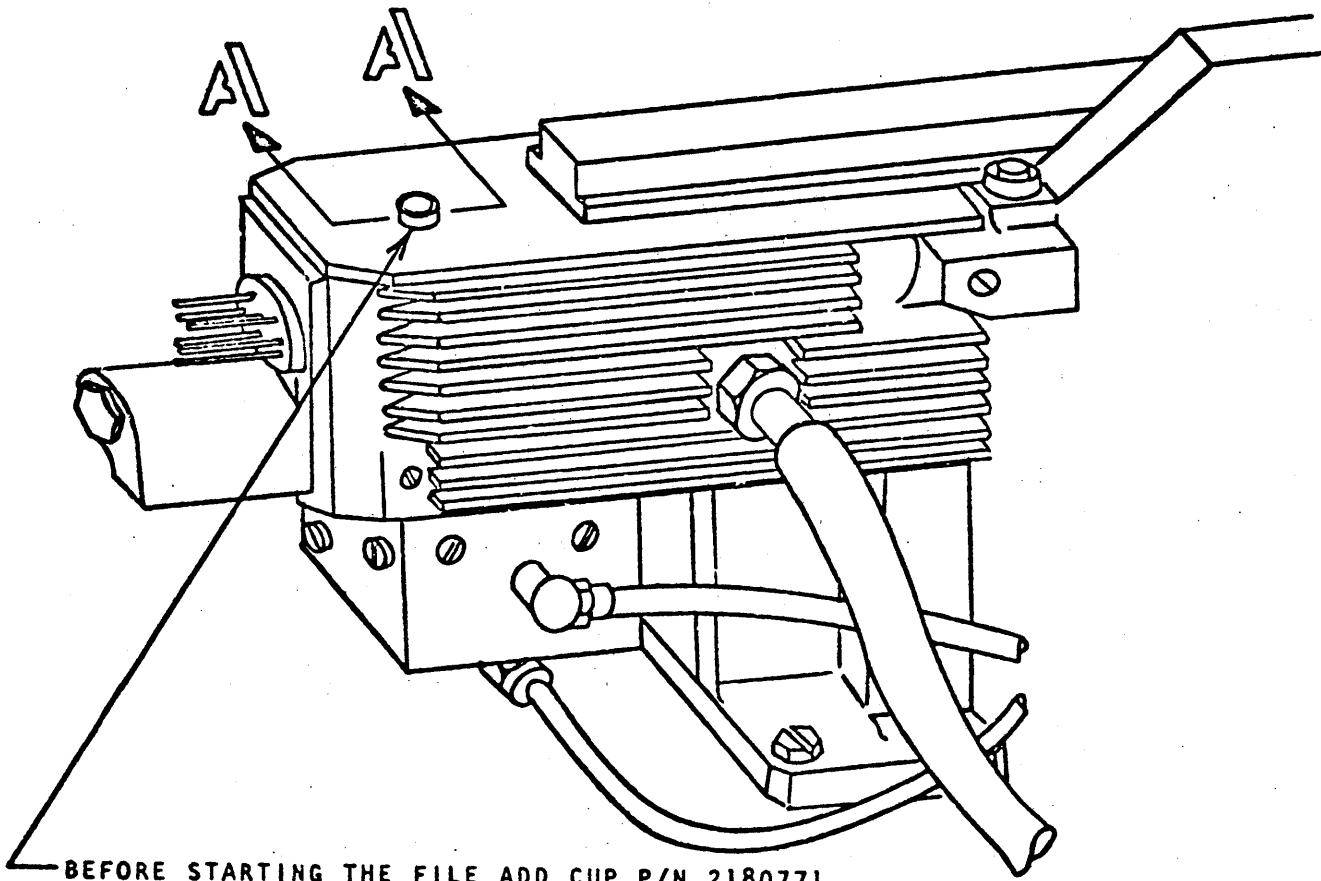
# INSTALLATION INSTRUCTIONS

P/N 2181069  
SHEET 8 OF 8

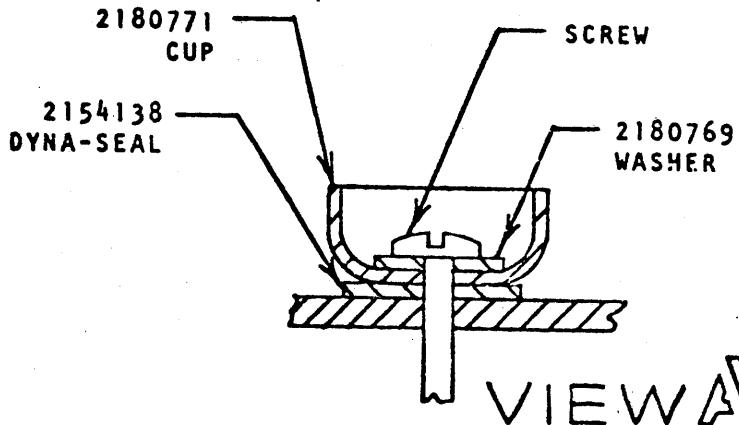
## HYDRAULIC SUMP RELIEF INSTALLATION

RELEASED MAINZ

2181069 - WORLD TRADE CORP. MACHINES ONLY



BEFORE STARTING THE FILE ADD CUP P/N 2180771  
AND WASHER P/N 2180769 TO THE HYDRAULIC SUMP.  
BOTH PARTS ARE PROVIDED IN A PAPER-BAG ATTACHED  
TO THE HYDRAULIC UNIT.



ENG. DATE	411125	21JUN66	26JUN67	13MAR68	
CHANGE NO.		408081B	411309	411355	

**2311**

**2311**

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112 East Post Road, White Plains, N.Y. 10601